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NOGAP B.6; VOLUME 8: SEDIMENT TRAP DATA COLLECTED IN THE BEAUFORT SEA, MARCH 1987 – MARCH 1988

by
M.C. O'Brien, K. Iseki, R.W. Macdonald,
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Sidney, B.C.

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Abstract

M.C. O'Brien, K. Iseki, R.W. Macdonald, J.R. Forbes, Yang Liangfeng, D. McCullough, 1991. *Can. Data Rep. Hydrogr. Ocean Sci.:* **60**, 238 pp

As part of the NOGAP B.6 program, with major objectives to determine hydrocarbon pathways and primary productivity of the waters overlying the Mackenzie Shelf, we measured water properties (biological, chemical and physical) on several transects. Coupled with the water sampling program, moorings were deployed at 4 sites (200 m) along the shelf margin. These moorings included current meters and sequential sediment traps of 2 designs (Honjo and Baker). Additionally, multi-traps (multiple baffled cylinders) and Kenney traps (closed, stacked cylinders with side ports) were deployed along a transect off Tuktoyaktuk during several intervals. We report here the results (flux and composition) of chemical analyses of the trap contents spanning the year from April 1987 to March 1988. Analyses include total mass, C, N, Chl a, Si, P, Al, Fe, Ca, and zooplankton composition.

Key words: Al, C, Ca, Chl a, Fe, flux, N, P, sediment traps, Si, total mass, zooplankton.

Résumé

M.C. O'Brien, K. Iseki, R.W. Macdonald, J.R. Forbes, Yang Liangfeng, D. McCullough, 1991. *Can. Data Rep. Hydrogr. Ocean Sci.:* **60**, 238 pp

Cette étude s'inscrit dans le cadre du programme NOGAP B.6 qui a pour objectivs principaux de déterminer le cheminement des hydrocarbures et la productivité primaire dans les eaux du plateau Mackenzie. Les propriétés biologiques, chimiques et physiques des eaux ont été mesurées le long de plusieurs transects et des mouillages ont été déployés à quatre sites (200 m) le long de la marge du plateau. Ces mouillages comportaient des courantomètres et des pièges à sédiment de types Honjo et Baker, lesquels permettent de faire un échantillonnage séquentiel. En outre, des pièges multiples et des pièges Kenney ont été déployés le long d'un transect au large de Tuktoyaktuk pendant plusieurs intervalles de temps. Ce rapport contient les résultats (flux et composition) des analyses chimiques des échantillons recueillis au cours de la période allant d'avril 1987 à mars 1988. La masse totale, le contenu en C, en N, en Chl a, en Si, en P, en Al, en Fe, et en Ca, ainsi que la composition du zooplancton ont été déterminés.

Mots-clés: Al, C, Ca, Chl a, Fe, flux, N, P, piège á sédiment, Si, masse totale, zooplancton.

Acknowledgements

This work was funded jointly by **Indian and Northern Affairs, Canada** as part of the *Northern Oil and Gas Action Program* and **Department of Fisheries and Oceans, Canada** We thank Polar Continental Shelf Project (PCSP) for support during the field work and the aircraft pilot, Harry Hanlan, for getting us to and from the mooring sites. Janet Barwell-Clarke provided the C/N analyses, and Sharon Buckingham assisted with the sediment trap splitting and subsampling procedures. We are indebted to the officers and crew of the CSS *John P. Tully* from which we recovered and redeployed the moorings. Dave Macdonald programmed and prepared the traps for deployment; Charles Gobeil translated our abstract into French; Sharon Thomson assisted with advice on style and final text-editing of this report; Denny Richards and Dale Sparrow produced the illustrations.

1 INTRODUCTION

As part of a major inter-disciplinary study (NOGAP B.6) to measure hydrocarbons and the primary productivity over the Beaufort Shelf, sediment traps were deployed during the period spanning spring of 1987 to spring of 1988. The objective of this part of the program was to collect a complete year's data for particle fluxes over the Mackenzie Shelf. We employed four types of traps. For vertical fluxes, sequential sediment traps (Honjo and Baker design), and multi-traps (multiple, baffled cylinders) were used. To capture particles moving horizontally, Kenney traps (closed, stacked cylinders with side ports) were used. The sequential traps were moored in about 200 m of water at the shelf break and the multi- and Kenney-traps were moored on a transect extending out across the shelf from Tuktoyaktuk (Figure 1).

The sequential sediment traps were deployed during two time intervals at each of four stations to collect data spanning a complete year (Table 1). These sediment traps were moored through the ice in April-May, 1987 (operating out of Tuktoyaktuk with aircraft support), recovered in August 1987 from the C.C.S. *John P. Tully* and then redeployed. The second deployment covers the period from September 1987 to March 1988 when they were recovered through the ice.

During the spring of 1987, there were two shorter term multi- trap deployments at each of three stations on a transect directly off Tuktoyaktuk (Table 2). At this time, the moorings were deployed and recovered through the ice. Later, during open water season (August - September, 1987), the multi-traps were deployed and recovered at two stations (stations 3 and 7). Other open-water moorings at stations 5 and 9 were lost either due to ship's traffic or to drifting ice.

Two Kenney-trap moorings were deployed from the ice in the spring of 1987 (Table 2); station K5 (10 pocket trap) and station K4 (5 pockets). During open water season, a Kenney-trap (10 pockets) was moored from the C.S.S. *John P. Tully* cruise at station 3.

Station names beginning with SS followed by a number refer to stations at which sequential traps were deployed. The -1 and -2 part of the station name indicates whether it was the first or second deployment (for example, SS3-2 refers to the second deployment period at station SS3). The multi-trap stations, which begin with MT, are designated similarly. If the -1 or -2 designation is absent, there was only one deployment of the trap at that site. The Kenney-trap stations are designated by a K.

The primary logistic goals (1987 - 1988) for the work done by Institute of Ocean Sciences staff were as follows:

- Collect time series measurements from late winter through to late summer for physical, chemical and biological properties on a transect extending from Kugmallit Bay (Mackenzie River) to the Shelf edge. This would include short-term sediment trap and current meter moorings, and hydrocarbon sampling.

- Deploy and recover moorings at the shelf edge (4 sites) to measure currents, light transmissivity, and sedimentation for the entire season (March 1987 - March 1988).

- Make measurements to delineate plume structure in the nearshore zone with and without ice-cover.

These measurements are augmented with satellite imagery, and Mackenzie River source functions for water flow, sediment discharge, and hydrocarbon content.

In this document, we report the data collected from the analysis of the sediment trap samples as described above. A brief overview of the data is outlined below with **bold** font indicating completed data and information which are reported here in the accompanying tables of this data report. Normal font is used for parameters that are not fully analyzed or completed.

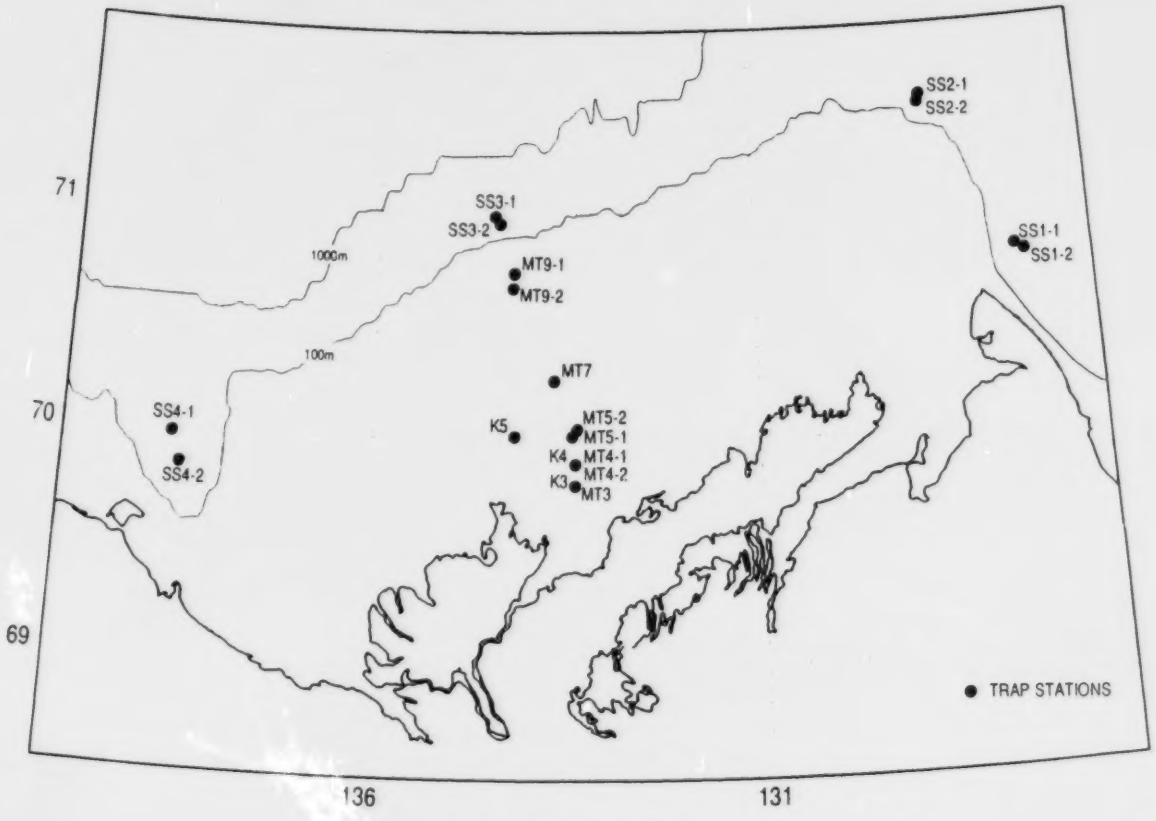

Figure 1: NOGAP 1987-88 trap locations

- **Sediment trap locations and deployment and recovery data**
- **Sieving and splitting information**
- **Flux calculations for collection periods (for >500, 63-500 and <63 μm fractions)**
- **Chlorophyll and Phaeo-pigments**
- **Particulate carbon and nitrogen analysis**
- **Silicate and phosphate analysis**
- **Metal analysis - %Fe, %Ca, and %Al (by flame (FAAS) and graphite furnace (GFAAS) atomic absorption spectrometry)**
- **Zooplankton identification (>500 μm fraction)** (second deployment only)
- Light microscope analysis of samples
- **Scanning electron microscopy (first deployment only)**
- Pigment analysis (HPLC)
- Carbon and nitrogen isotope analysis
- Hydrocarbon analyses (Multi-trap collections)

2 METHODS

2.1 Field Sampling Methods

Four types of sediment traps were employed during this phase of the project. A brief description of each type of trap, deployment and recovery details, and a chain of custody up to the time of sample splitting is described below.

Sequential sediment trap moorings were constructed as single-point, taut-line systems with chain clump anchors and subsurface flotation (Figure 2). Mooring plans included deployment in the spring from the ice with recovery and subsequent re-deployment from a survey vessel during the summer open water season. Mooring designs and deployment/recovery techniques differ considerably between sea-ice and sea-going programs; it was therefore necessary to design these arrays to work with both methods. In addition to the sediment traps, these moorings also had two current meters. Mooring design, specifications and the current meter data are available in separate reports [*McCullough et al.*, 1988a, b].

2.1.1 Baker Sequential Sediment Trap Deployment

The Baker trap, shown in Figure 3, is a 1 metre long, 220 cm ID pvc tube that houses an asymmetrical polyethylene funnel [*Baker and Milburn*, 1983]. The gravitationally settling particles in the water column are collected *via* the funnel into one of ten 200 mL acrylic sample tubes. The bottles are rotated into position at time-intervals determined by switch settings on the timer electronics board. The collection area of the Baker trap is 0.032 m^2. In preparation for deployment, the sample tubes were soaked in a RBS bath (20 mL RBS concentrate per liter water) overnight, rinsed well with warm tap water, soaked in a 1 N HCl bath for 4 hours, rinsed with double run Milli-Q water and dried in a 50 °C oven. Before deployment, 2 g NaCl and 200 mg $HgCl_2$ (to inhibit bacterial

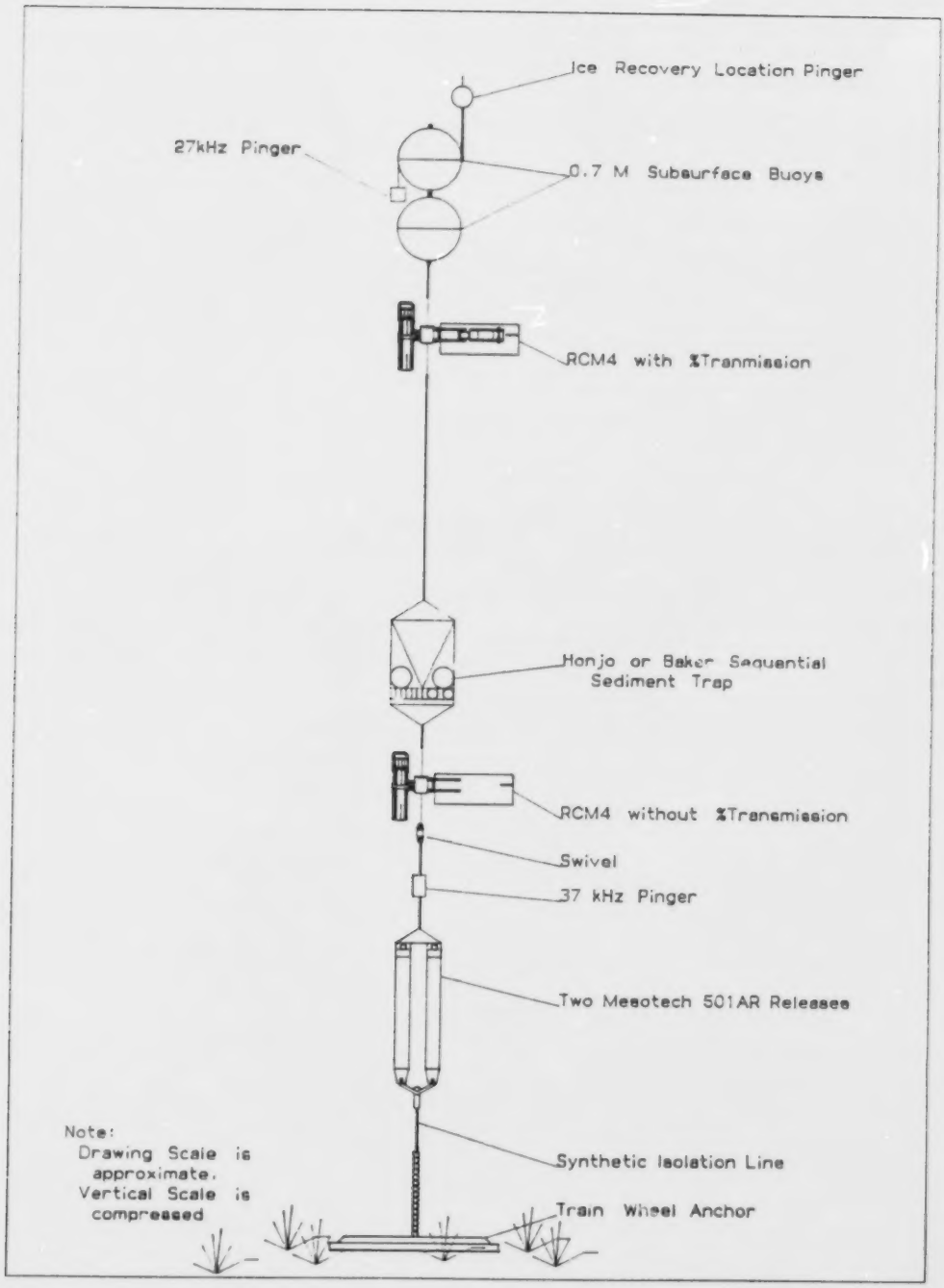

Figure 2: Sequential sediment trap mooring configuration

growth) were added to each tube and the tubes were filled with filtered seawater obtained from the depth at which the traps were to be moored. The deployment and recovery times and dates are listed in Table 1 and the dates of the individual collection periods are included with the tables in the Appendix.

Upon recovery of the first deployments at stations SS2-1 and SS4-1, (from the C.S.S. *John P. Tully*) the contents of the traps were allowed to settle, then removed from the trap, transferred to acid cleaned Teflon containers, capped, and stored in a refrigerater aboard the ship at 2.6 °C until the ship returned to IOS (28/09/87). The samples were then transported to the lab and stored in the refrigerator at 0°C. These samples were then wet-sieved through a 500 μm Nitex sieve and both fractions were stored in the refrigerator. The <500 μm fraction was then wet-sieved through a 63 μm Nitex mesh and the two resulting fractions (< 63μm and 63-500 μm) were subsampled for various types of analysis using a rotary splitter (or by using graduated cylinders) and filtered onto filters or stored as required by the analysis to be performed (15/10/87 - 20/10/87).

Upon recovery of the second deployments of the Baker traps at stations SS2-2 and SS4-2, the contents of the traps were allowed to settle, removed from the trap, transfered to acid cleaned Teflon containers, capped, and stored in a refrigerator in the laboratory at Tuktoyaktuk at 5 °C (24/03/88 - 26/03/88). The samples were then transported in coolers lined with freezer paks back to IOS by air (26/03/88 - 27/03/88) where they were stored in the refrigerater at 0°. The sieving (500 μm and 63 μm) and subsampling by rotary splitter were done during the period 09/05/88 - 26/05/88. The sieving, splitting and treatment of subsamples is described in more detail below.

2.1.2 Honjo Sequential Sediment Trap Deployment

The Honjo Mark 6-13 sediment trap consists of a large funnel lined with fiberglass or polyethylene, a rotator/timer assembly, a stepping motor in a housing containing silicone 200 CS 20, a compensating bladder (to equalize the pressure in the motor housing) and a carousel assembly with a fixed plate and a rotating plate accommodating 13 sample containers (Figure 4). The timer schedule setup and data retrieval were accomplished using an Epson computer. The collection area of the Honjo trap is 0.509 m^2 and the funnel concentrates gravitationally settling particles into the receiving bottles on the carousel. Teflon face seals are used between the fixed and rotating plates ensuring a minimum of exchange between the contents of the sample containers and the surrounding water.

In preparation for deployment, the 250 mL polpropylene receiving bottles were soaked overnight in 1 N HCl, rinsed well with double Milli-Q water and air dried. Before deployment, 2 g of NaCl and 500 mg of $HgCl_2$ were added to each of the bottles. Seawater was collected from the mooring depth with a 10 L GO-FLO sampler. The seawater was slowly poured into each receiving bottle and the bottle was screwed on to the rotating plate. Final topping up of the bottles was done through the top of the plate.

Upon recovery of the first deployments at stations SS1-1 and SS3-1, the contents of the traps were allowed to settle, then removed from the trap, capped, and stored in a refrigerator aboard the ship at 2.6 ° (18/08/87 - 28/09/87). The samples were wet-sieved through a 500 μm Nitex mesh while aboard the ship (25/08/87). At station SS3-1, the last three cups on the carousel contained very little sediment due to a clogging of the end of the funnel by a jellyfish. There was a large amount of sediment accumulated on the inside of the funnel wall and a portion of it was collected for analysis. As before, the samples were returned to IOS *via* the C.S.S. *John P. Tully*. They were offloaded (28/09/87) and stored in the refrigerator at 0 °C. The <500 μm fraction was then wet-sieved through a 63 μm Nitex mesh and the two resulting fractions (<63 μm and 63-500 μm) were subsampled for various types of analysis using a rotary splitter and filtered onto filters or stored as required by the analysis to be performed (04/11/87 - 12/10/87 for station SS1-1 and

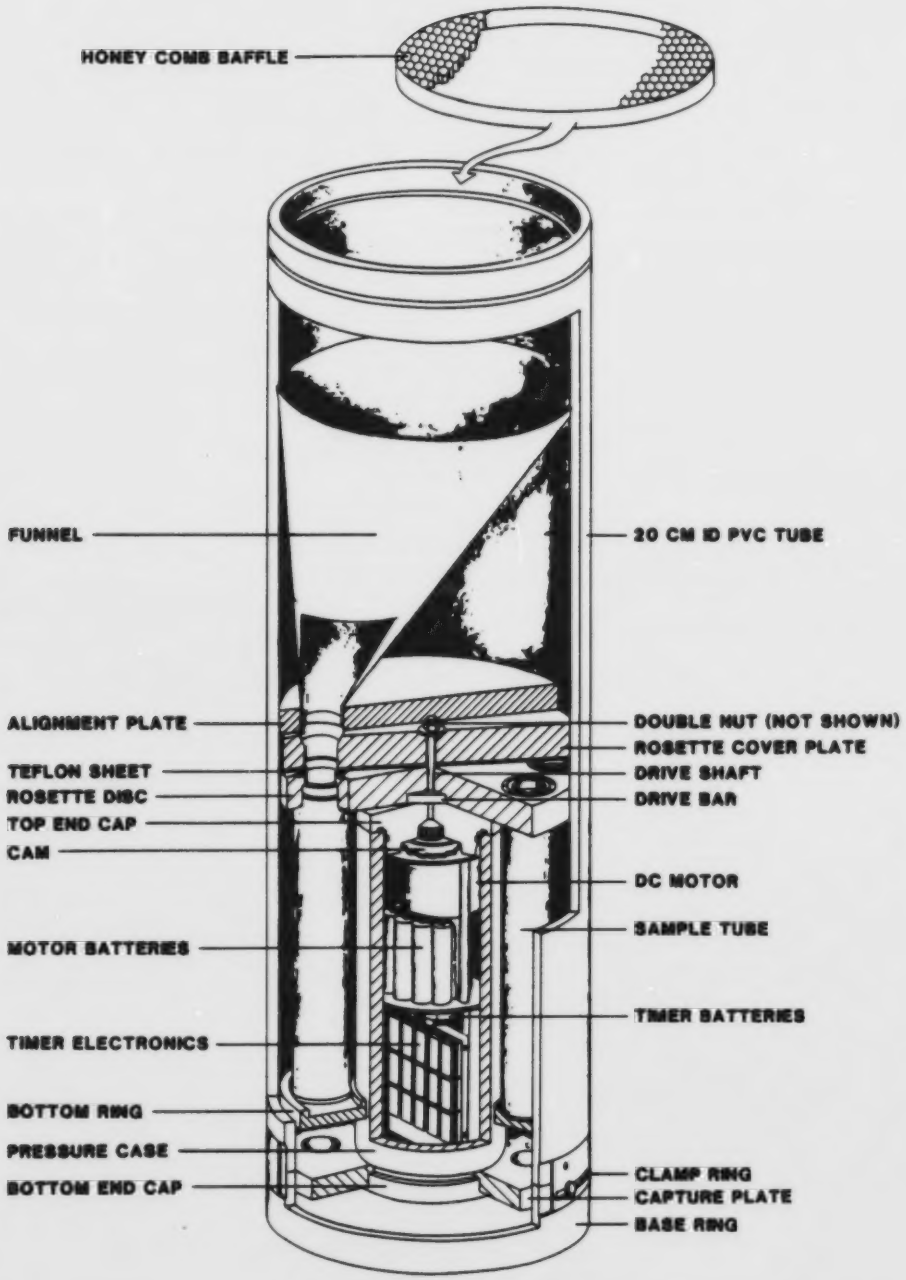

Figure 3: Baker Trap design

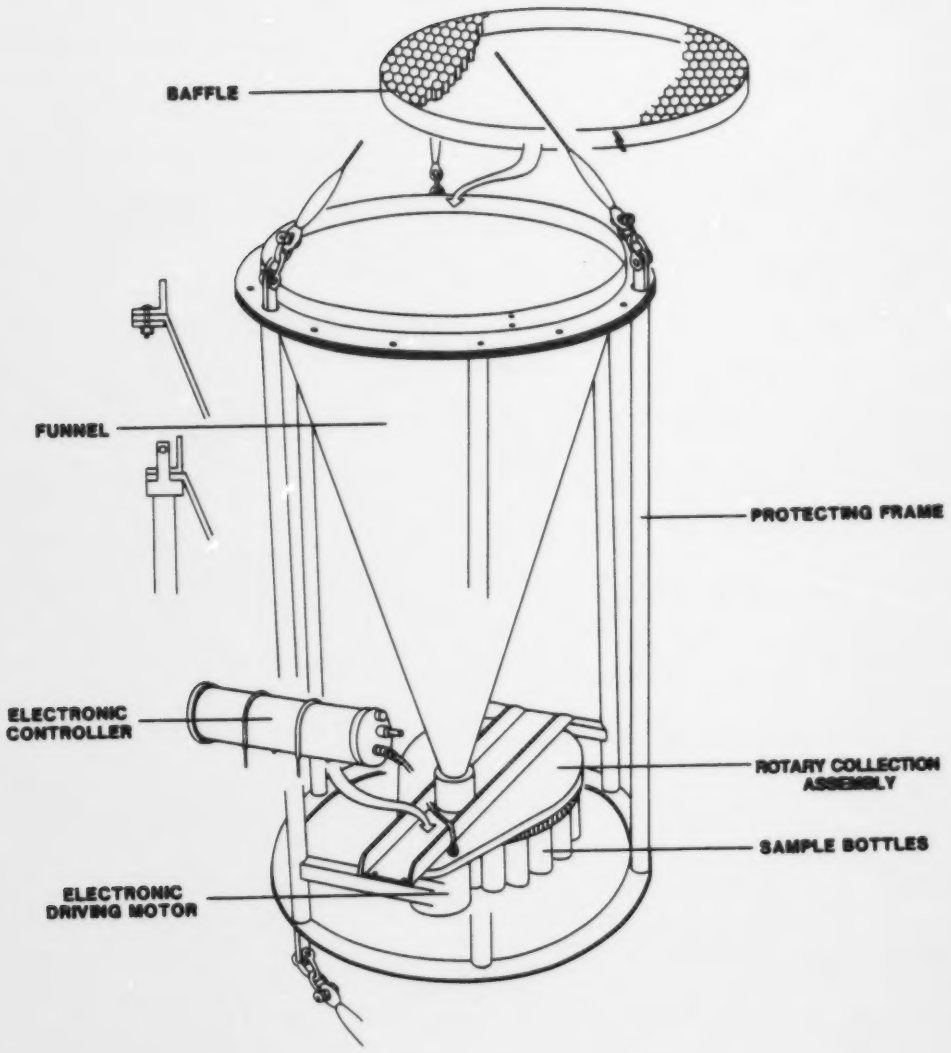

Figure 4: Honjo Trap design

28/10/87 - 02/11/87 for station SS3-1).

Upon recovery of the second deployments (spring, 1988) of the Honjo traps at stations SS1-2 and SS3-2, the contents of the traps were allowed to settle, removed from the trap, capped, and stored in a refrigerator in the laboratory at Tuktoyaktuk at 5°C (22/03/88 - 26/03/88). The samples were then transported in coolers lined with freezer paks back to IOS by air (26/03/88 - 27/03/88) where they were stored in the refrigerator at 0 °C. The sieving (500 μm and 63 μm) and subsampling were done during the period 24/05/88 - 14/05/88. The sieving, splitting and treatment of subsamples is described in more detail below.

2.1.3 Multi-Trap Sediment Trap Deployment

The multi-trap consists of three stainless steel frames, two shackles, eight polycarbonate tubes with baffles and eight Teflon sample cups (Figure 5). Multi-traps were moored in a taut-line configuration either suspended from the ice (Figure 6a) or bottom-anchored during open water season (Figure 6b). The eight cups and tubes fitted with baffles (made of short sections of 1/2 inch OD Teflon tubing) that go with each trap were cleaned at IOS according to the type of analysis that was going to be performed. Six of the eight cups, tubes and baffles were cleaned for hydrocarbon analysis. This consisted of an overnight soak in an RBS bath, rinses with tap water and then with glass distilled water, air drying on baked tin foil (or rinsed with acetone if time insufficient for air drying) and finally, a rinse with methylene chloride. The assembled units (cups, tubes and baffles) were capped with aluminum pie plates (baked at 500 °C) and stored in sealed plastic bags until time of deployment. The remaining two units for the multi-traps were cleaned for sampling for metals (Ca, Fe and Al), Si, P, organic carbon, organic nitrogen, chlorophyll, light microscope work and scanning electron microscope work. The cleaning was done by soaking the cups, tubes and baffles overnight in 1N HCl, rinsing with double run Milli-Q water, air drying and storing in sealed plastic bags as assembled units until time of deployment. For preservation of the sample and the prevention of bacterial growth, 2 g NaCl and 100 mg $HgCl_2$ were added to the cups just prior to deployment. In the case of the tubes for hydrocarbon sampling, the NaCl and the $HgCl_2$ were baked at 500°C and the $HgCl_2$ was recrystallized and washed with methylene chloride to eliminate impurities.

Immediately before deployment, the sample cups and tubes were filled with deep water or filtered seawater collected at the deployment site. The water was collected with a 10 L GO-FLO or with the aid of a submersible pump with Teflon tubing. For the deployments through the ice, care was taken to avoid freezing before deployment. Where possible, water that was passed through a large volume filter was used to fill the traps. In all cases, care was taken to fill the traps with low particulate water (either by filtering the water or by taking deep water) with a salinity close to that of the depth the traps were deployed. Upon recovery, the sample in the cup was allowed to settle and water in the tube above the cup was carefully drained or siphoned off. The sample cup was then detatched from the bottom of the polycarbonate tube, sealed with a Teflon cover, placed in a cooler and transported back to the lab in Tuktoyaktuk or to the lab on the ship where they were stored in a refrigerator at 4°C. If the trap was to be redeployed (as was the case during the icework), the new Teflon cups containing NaCl and $HgCl_2$ were added to the tubes and filled with deep water or filtered seawater from that site.

For the multi-traps recovered through the ice, the samples were allowed to settle and extra liquid was decanted off in the lab before shipping. The samples were then combined to reduce the number of containers for shipping and extra $HgCl_2$ was added to the cups where necessary. Generally, for the two multi-trap deployments through the ice, two cups were combined for carbon and metal analysis and the other six cups were combined for hydrocarbon analysis (details on the

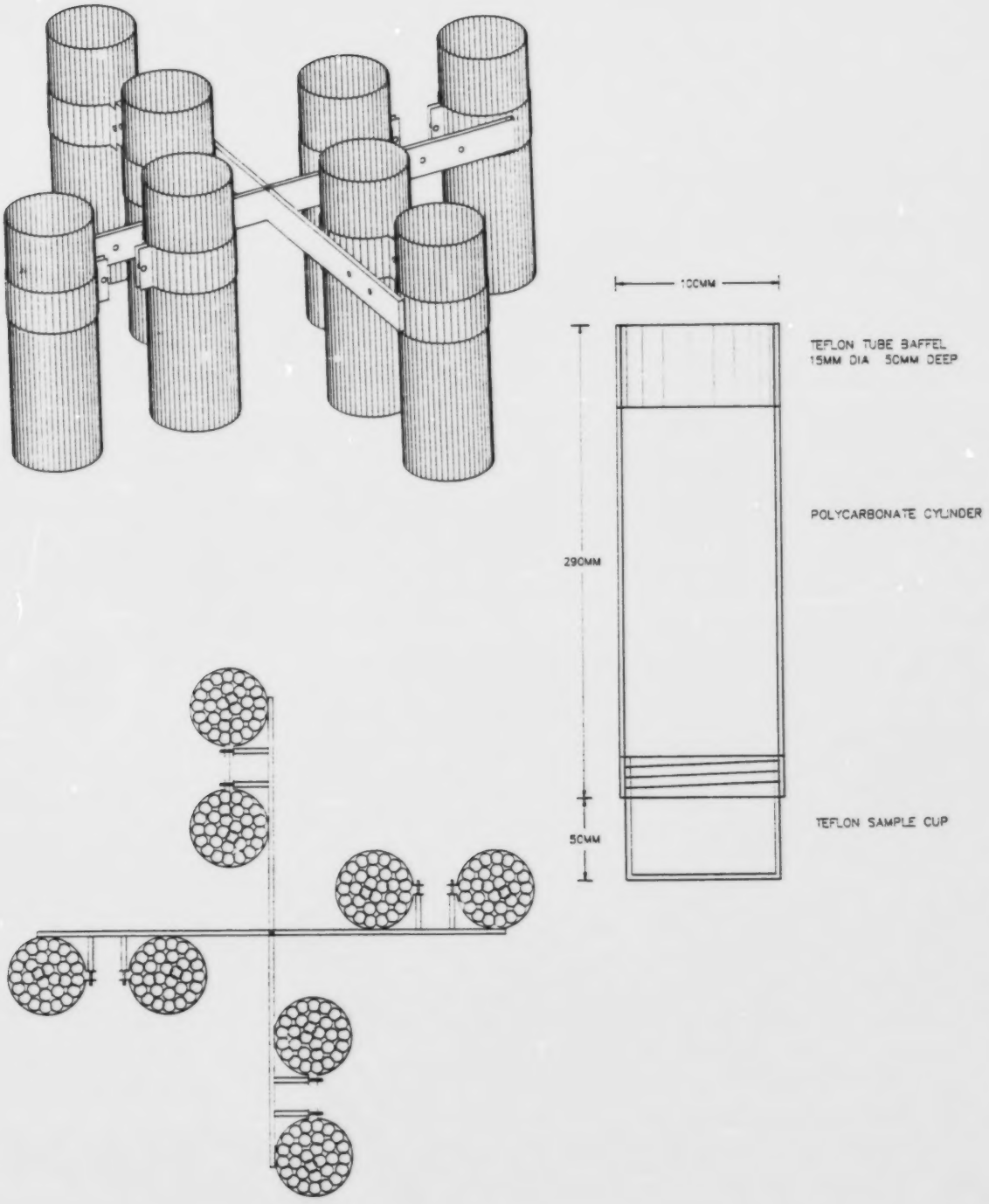

Figure 5: Multi-trap design

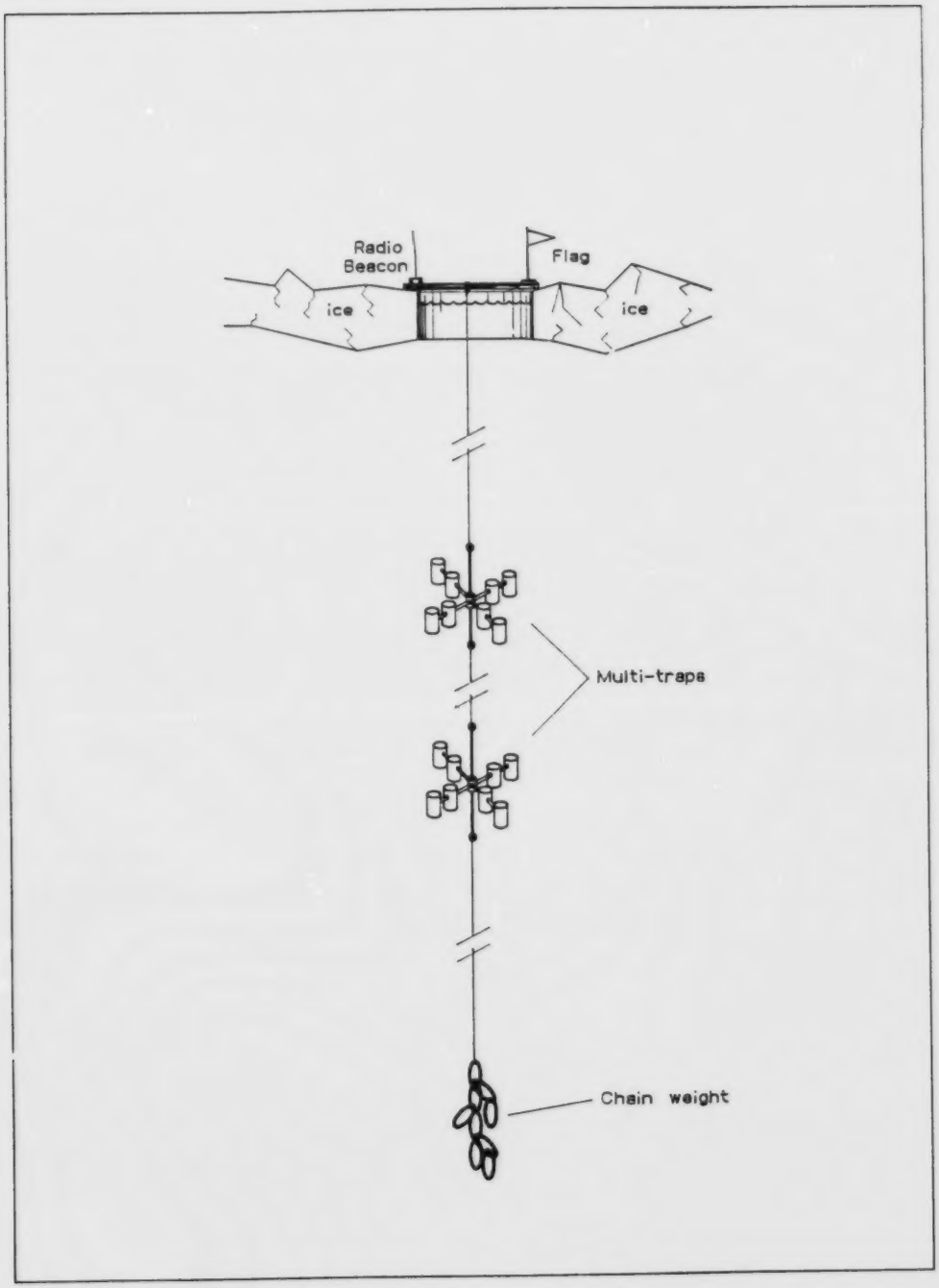

Figure 6a: Multi-trap mooring in ice conditions

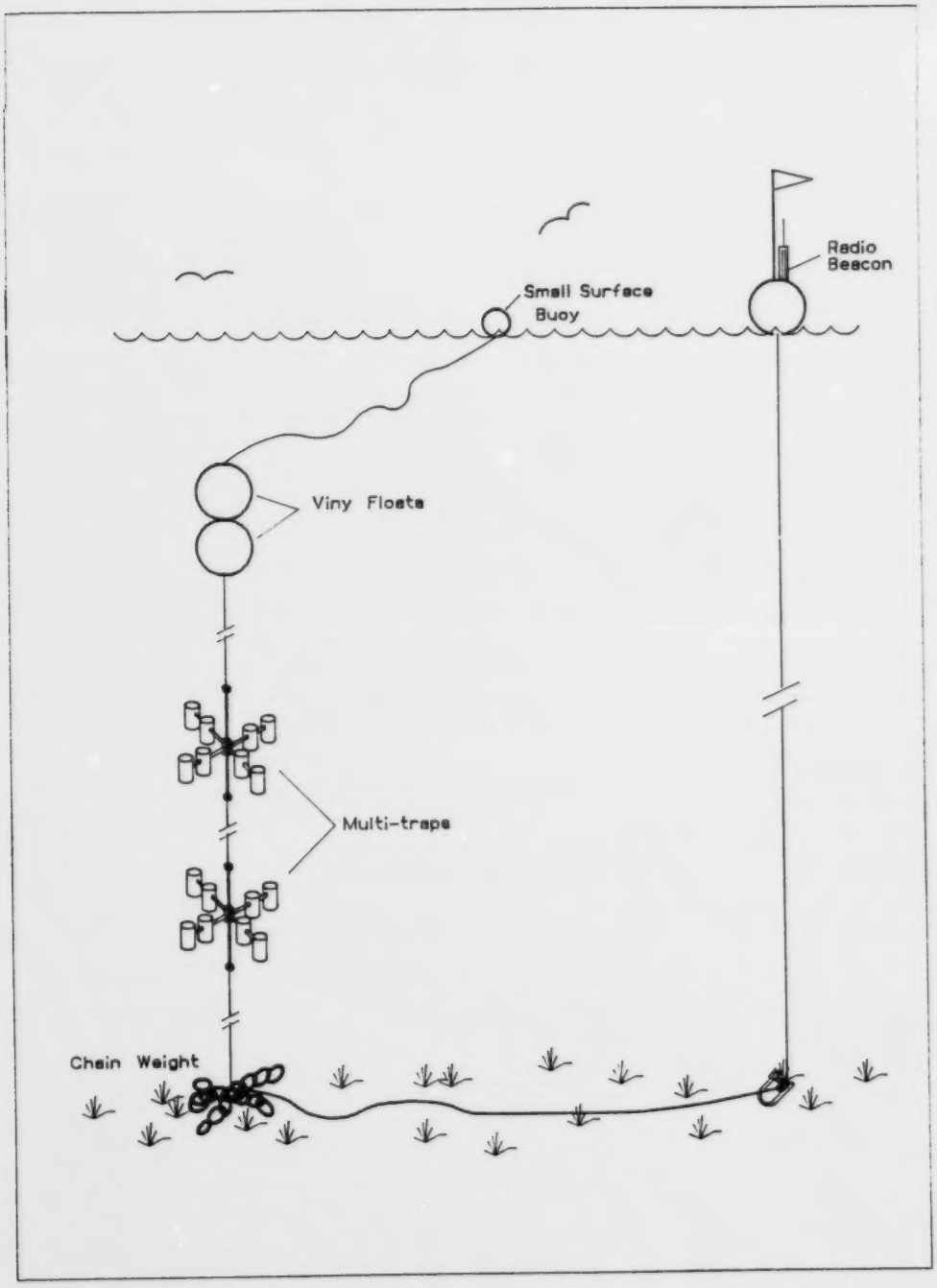

Figure 6b: Multi-trap moorings in open water conditions

combining of cups and the splitting of the samples are provided in tables in the Appendix). Upon recovery of the first deployments, there was no extra preservative added to the samples. The second deployment however, required extral $HgCl_2$ after recovery as live zooplankton were observed (100 mg $HgCl_2$ added to each combined sample). The samples were then sealed in double plastic bags and placed in portable coolers with freezer packs for shipment by air. The trip from Tuktoyaktuk to Sidney was accomplished in one day. At IOS the samples were transfered to the refrigerator for storage at 4 °C, and the hydrocarbon samples were put through a 350 μm sieve and stored in the freezer for future analysis.

The multi-trap samples from the C.S.S. *John P. Tully* cruise were stored on board the C.S.S. *John P. Tully* in a 4 °C walk-in cooler from the time of recovery to the time the ship returned back to IOS from the Arctic (Oct. 1987). Upon arrival at IOS, the samples were transfered to refrigeraters in the lab and stored at 4 °C. On Oct. 7/87, these samples were decanted and combined in the lab at IOS. The samples for carbon and metal analysis were decanted and stored at 4 °C until subsampled. The sample cups assigned to hydrocarbon analysis were decanted and frozen in the Teflon cup. See tables in the Appendix for further details on the combination of multi-trap cups and splitting of the samples.

2.1.4 Kenney-Trap Deployment

Kenney-traps were deployed through the ice at stations K5 and K4 during April and May of 1987 and at station K3 in August of 1987. The Kenney-trap is designed to capture suspended sediment travelling horizontally in the water column at a series of distances from the bottom [*Kenney*, 1985]. It can be mounted directly on the bottom, or suspended in the water column. It consists of a long PVC tube (diameter about 10 inches) containing a series of funnels that collect sediment that has entered the trap through a series of small holes around the tops of the funnels and around the circumference of the trap (Figure 7). For this study, we used one "10-pocket" and two "5-pocket" traps. At each sample interval, the individual sample containers (250 mL polypropylene bottles) are secured to the bottom of each of the funnels. After recovery, the traps were held vertically for at least one hour to allow the samples to settle. The water in the funnel was allowed to drain by unscrewing the sample bottle slightly and letting water above the top of the bottle leak out slowly. Sample bottles were then removed from the bottom of the funnels, capped and placed in the refrigerater until shipped to IOS (by air) in coolers lined with freezer packs.

At IOS, these samples were subsampled for organic carbon and total weights were determined. A salt correction was made by measuring the salinity of the supernatant and weighing the sample before and after drying (supernatant decanted off). Total weights can then be converted to capture rate (g/day) using the deployment interval.

2.2 Sample Analysis

The samples from the sequential- and multi-sediment traps were sieved through 500 μm and 63 μm sieves and subsampled for the following analysis: Fe, Al, Ca, Si, P, organic carbon and nitrogen (POC,PON), carbon and nitrogen isotopes (^{13}C, ^{15}N), light microscopy (LM), scanning electron microscopy (SEM), chlorophyll and phaeo-pigment (Chla) and total pigment (PIG). Each of the subsample types was treated in such a way as to avoid contamination and the procedures for subsample treatment and sample analysis are described below.

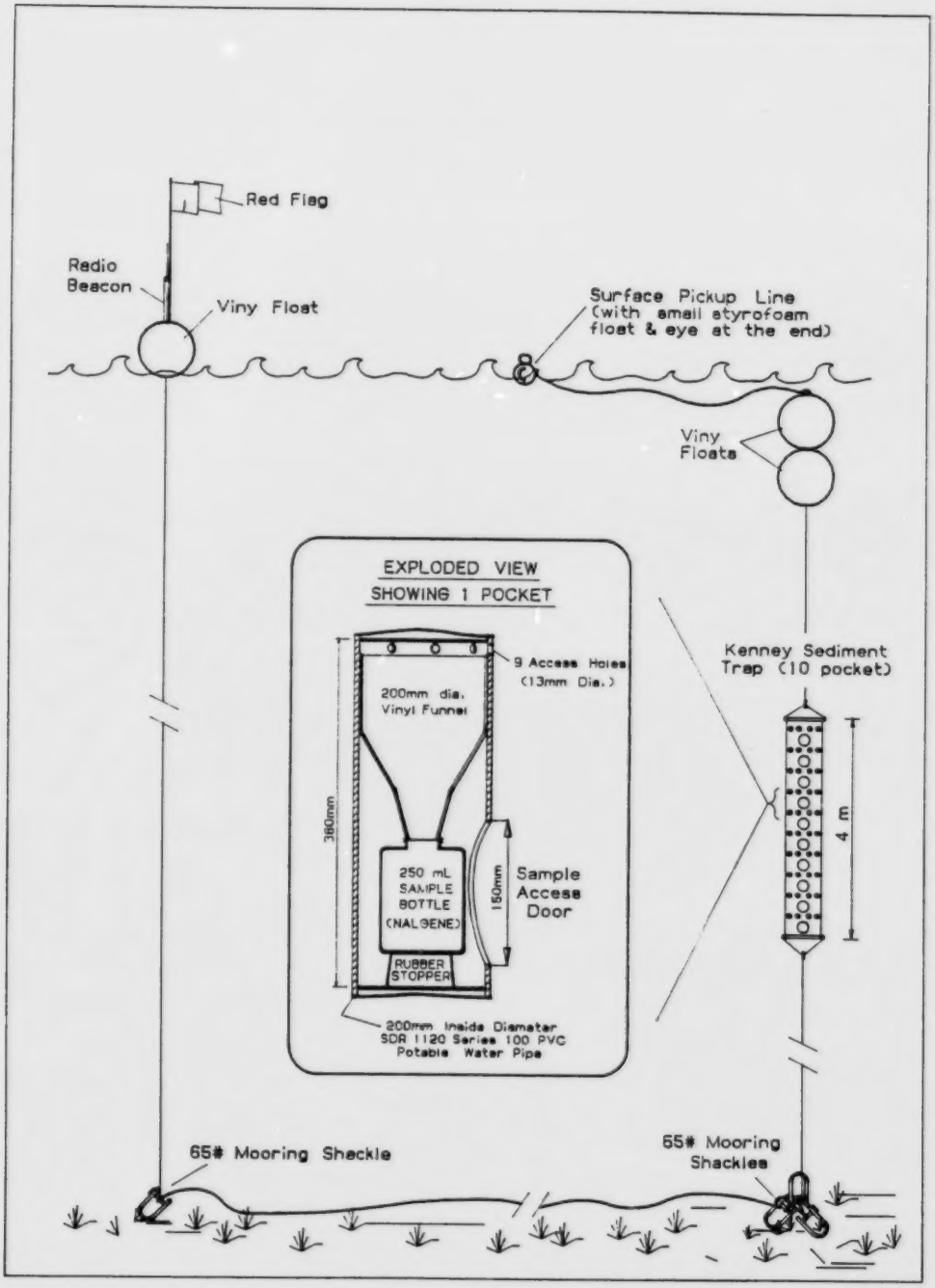

Figure 7: Kenney trap mooring and design

2.2.1 Quality Assurance in Laboratory Analysis

Errors for the various methods reported here are expressed as precision and accuracy and are summarized in Tables 3 to 7. Pooled variance, s_p, is calculated as

$$s_p = \sqrt{\frac{\sum_{i=1}^{k} d_i^2}{2k}}$$

where k is the number of duplicates in the data set and d_i is defined as the difference between duplicates.

Two sediment trap control sediments were prepared from the multi-trap samples at station 3 (MT-1) and at station 7 (MT-2) by removing the salt, drying and grinding with an agate mortar and pestle. These sediment-trap control samples were analyzed independently by an outside laboratory; values obtained by this lab are considered to represent 100% recovery for the purposes of this report. It is recognized that MT-1 and MT-2 are not true reference materials; rather, we have used them as controls representative of sediments and sedimenting material from the Beaufort Shelf. Standard reference sediment BCSS-1 (NRC, Canada) and control sediments MT-1 and MT-2 were analyzed with the sample batches as a check on the technique (for Al, Ca, Fe, Si and P analysis).

2.2.2 Sample Sieving and Splitting

The samples from the traps were wet-sieved through 500 μm and 63 μ Nitex sieves using the supernatant liquid or filtered seawater from Ocean Station Papa (50^0 N 145° W) as the wash solution. The three size fractions (<63 μm, 63-500 μm, and >500 μm) were then split by using graduated cylinders to pour off measured volumes of the suspended sample or by using a rotary splitter. Subsamples for metals (Fe, Al, Ca), P, Si, particulate organic carbon and nitrogen, chlorophyll, light microscope, and scanning electron microscope analysis were taken for each sample (Figure 8). A flow diagram was drawn for each sample to keep track of the various portions.

For each sample, the supernatant was decanted off through a 500 μm sieve and into a squeeze bottle. The remainder of the sample was then passed through the 500 μm sieve and the material was washed to remove particles less than 500 μm using the supernatant liquid in the squeeze bottle. The >500 μm fraction was then washed into a sample cup using the supernatant liquid. When there was not enough supernatant liquid for rinsing, filtered seawater from Station Papa (1000 m and 200 m) was used. The >500 μm portion was labelled and refrigerated in the sample cup for further sorting or filtered onto a 47 mm 0.4 μm Nuclepore filter and dried or frozen. The <500 μm portion was then passed through a 63 μm sieve using the supernatant liquid for rinsing. The 63-500 μm portion was then rinsed off the screen into a sample cup and stored in the refrigerater along with the <63 μm portion to await splitting. The 63-500 μm and the <63 μm fractions were then split using a rotary splitter or graduated cylinders.

For the subsample for metals (Fe, Ca, Al), Si and P, a portion of the total sample was filtered onto an acid cleaned 0.4 μm, 47 mm Nuclepore filter, and rinsed three times with a 3% ammonium carbonate solution. These filters were prepared as follows: 6 N HCl for 4 hours, overnight in dilute HCl (<1%), rinsed well with double Milli-Q water, dried on acid cleaned petri slides at 50 °C overnight and weighed on a Mettler M3 balance. Where possible, replicates of the metal samples were prepared. After filtration, the filters were dried overnight at 50 °C, cooled for 4 hours in a dessicator and re-weighed on a Mettler M3 micro balance. These weights were used to calculate the total flux for the time periods they represent.

The particulate organic carbon and nitrogen and the C and N isotopes subsamples were filtered onto 0.8 μm, 24 mm precombusted silver filters, rinsed with glass distilled water, dried overnight

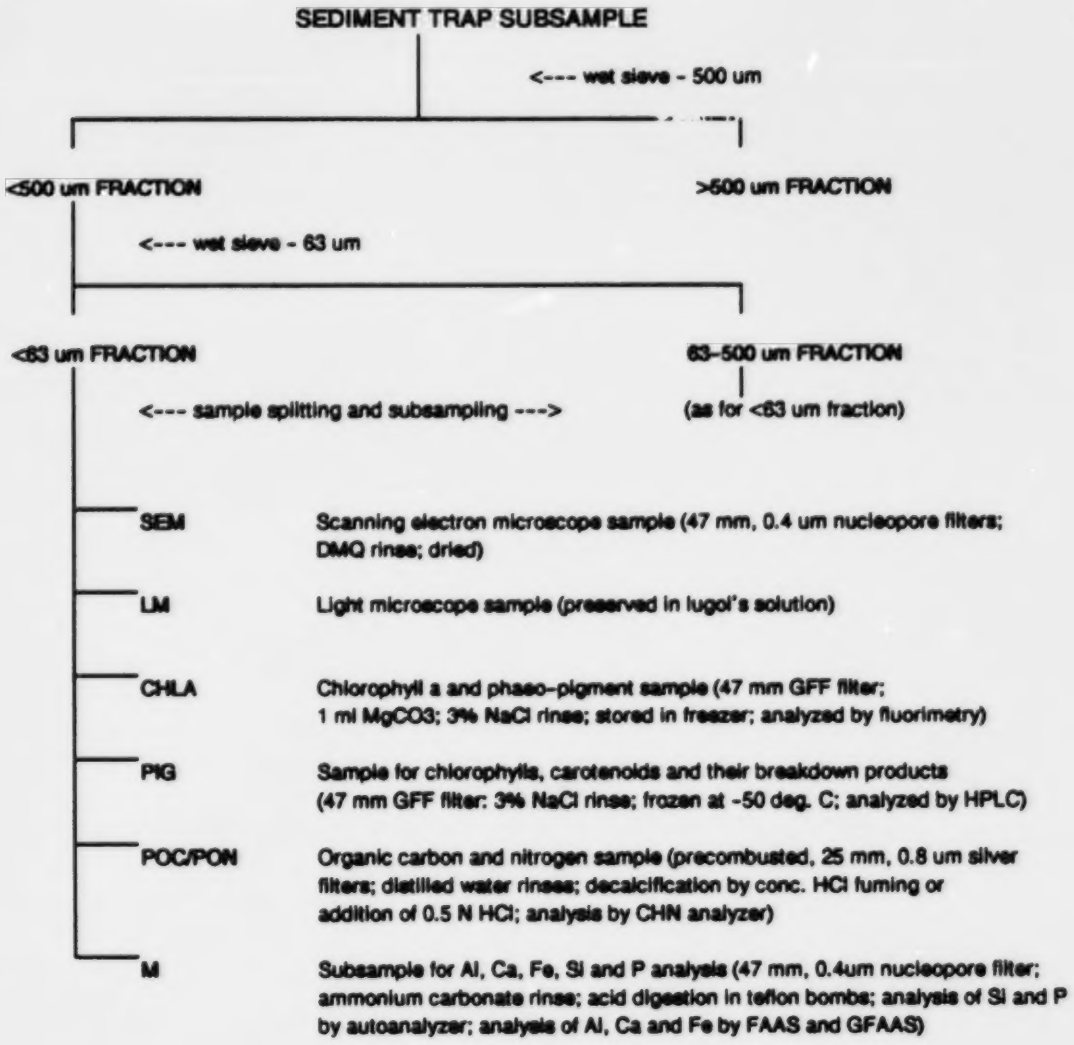

Figure 8: Sieving and subsampling flow chart

in a 50 °C oven, and stored until analyzed. The light microscope samples were transfered to small glass vials, preserved with Lugol's solution and stored in the refrigerater.

For the scanning electron microscope (SEM) subsample, a very small fraction of the sample was filtered onto a 0.4 μm, 25 mm Nuclepore filter, rinsed with Milli-Q water to remove salt, dried overnight in a 50 °C oven and stored in plastic Petri dishes for future analysis.

The chlorophyll and phaeo-pigment subsample (Chl a) was filtered onto a 47 mm GFF filter with filtered seawater rinses. Just before the filtration was complete, approximately 1 mL of a 1% suspension of $MgCO_3$ was added to the filter. The sample was then folded into a Whatman #1 filter, labelled and stored in the freezer in a dark bottle containing dry silica gel. During the splitting and filtration steps care was taken to keep the light low and to keep the samples cool to maintain their integrity.

The pigment samples were treated in the same manner as the chlorophyll samples except that there was no $MgCO_3$ added to the filter and they were stored in a minus 50 °C freezer until analyzed.

2.2.3 Calculation of Total Fluxes

In general, the total fluxes for the sequential traps and the multi-traps were calculated as follows :

$$\text{Flux} = \frac{W}{F \times D \times A}$$

where:

W Summation of weights of metal, SEM and carbon subsamples.

F Summation of fractions of total weights of subsamples.

D Duration of collection period.

A Collection area of trap.

Where appropriate, some subsamples were not included in the flux calculations. For example, during the first deployment many of the POC samples were dried on aluminum foil and the resulting corrosion yielded unreliable weights for the flux calculations. The SEM sample was not always included and any samples where there was doubt about the weight were excluded. Splitting information and the subsample weights are included in Appendices and subsamples that were excluded from the calculation are noted specifically in the comments.

2.2.4 Digestion Procedure for Fe, Al, Ca, Si and P Analysis

Concentrations of Fe, Ca, Al, Si and P were determined by complete acid digestion of the sample in Teflon bomb. Fe, Ca and Al were analyzed by atomic absorption spectrophotometry (flame and graphite furnace) and the Si and P were analyzed using a Technicon Autoanalyzer.

Standard reference sediment BCSS-1 and the in-house control samples (MT-1 and MT-2) were digested and analyzed in the same manner as the trap samples to determine the precision of the techniques and to evaluate recoveries. Approximately 10 % of the samples were analyzed in duplicate and the pooled satandard deviation was calculated.

The Nuclepore-filtered samples were digested following a modification of the method described by [*Noriki et al.* 1980]. These modifications were made to adjust the method to the particular

equipment we have, and also in accordance with method testing carried out on Standard Reference Materials. The samples and Standard Reference Materials were digested in sets according to sample weight and whether there was a filter. The following digest sets were used:

set A 30 to 75 mg sample weight, filter.

set B >75 mg sample weight, no filter.

set C 10 to 30 mg sample weight, filter.

set D 2 to 10 mg sample weight, filter.

set E <2 mg sample weight, filter.

set F <2 mg samples of BCSS-1, MT-1, MT-2 and blank filters.

set G Varied weights, filter.

Digestions were carried out in Teflon bombs fitted with stainless steel collars lined with Teflon. The bombs were cleaned by immersing them in a warm 4 N HNO_3 bath overnight and then rinsing them well with double Milli-Q water. Before the low- weight samples were digested the bombs were prepared by running them through the procedure without samples: 500 μL HNO_3, 500 μL perchloric acid, 500 μL HF were added to the bomb, the bomb was sealed and heated at 150 °C for 6 hours, cooled, rinsed well with double Milli-Q and dried. The dried and weighed samples (on Nuclepore filters or dried and preweighed into plastic vials) were transfered to the bomb taking care not to lose any of the sample. Using an Eppendorf repeator pipette with an acid cleaned tip, 300 μL of concentrated HNO_3 (Aristar) was added to each bomb (a maximum of 12 samples were digested per batch). Each bomb was checked to ensure that the sample was completely wetted with the acid. This was followed by the addition of 300 μL of concentrated perchloric acid (Aristar) and gentle swirling to ensure that the acids were well mixed. The bombs were then sealed and fitted with stainless steel collars and placed in a forced air oven preheated to 150 °C for 5 hours. After cooling to room temperature in the draft of a fumehood, the bombs were opened and 300 μL of concentrated HF (Aristar) were added to each bomb. Bombs were swirled gently to ensure that the contents were well mixed, resealed and reheated in the forced air oven at 150 °C for a further 6 hours, removed from the oven and cooled to room temperature in the fumehood. The two-step digestion was used to ensure complete dissolution of the Nuclepore filters. Usually, the first step was carried out during the day and the second overnight using a timer to turn the oven on at a pre-set time. The bombs were then opened and sample was transfered to acid cleaned, preweighed (to nearest 0.0001 mg) 15 mL polybottle using small rinses of double Milli-Q water and an acid cleaned polyfunnel. The volume was made to approximately 10 mL and care was taken to avoid any liquid getting on the outside threads of the bottle. The 15 mL polybottles were handled with plastic gloves to avoid changing the weight of the bottle as this could contribute error to the Si subsampling. The polybottles were capped and stored for the Si subsampling and the evaporation steps. Each digest set (9 to 12 samples) contained one or two reference sediments and a blank. The long digestion times were necessary due to the large size of the Teflon bombs used. Shorter times resulted in incomplete digestions.

A subsample was removed from the digest described above for the Si analysis prior to the evaporation step to avoid any loss of Si. The 15 mL polybottle containing the digested sample was weighed (Mettler AE163 balance to the nearest 0.0001 mg) before and after removal of a subsample for Si using an adjustable volume Eppendorf pipette. The volume of the digest taken depended on the sample weight digested (e.g., <2 mg - 500 μL, 2-5 mg - 200 μL, > 5 mg - 100 μL). The

fraction of the total sample used for the Si analysis was calculated from the weight used for the Si sample and the total weight of the digest. The volumes for the subsamples are outlined below. Samples of greater than 10 mg often required further dilution.

The Si subsamples were pipetted into acid cleaned plastic tubes containing 10 mL of the dilution matrix (35 g NaCl and 1.2 g boric acid dissolved in double Milli-Q and made up to 1 liter). The diluted Si sample was then capped tightly and stored in the refrigerater until analyzed.

After the removal of the Si subsample, the sample digest was evaporated to dryness in an acid cleaned Teflon beaker on a hot plate. The digest was transfered to the beaker with small DMQ rinses. The empty polybottles were placed in an oven to dry so that the samples could be returned to them after redissolution. After the samples were allowed to cool, 200 μL concentrated HCl (Aristar) was added to the beaker to dissolve the dried sample. The sample was then added to acid cleaned 10 mL volumetric flasks using a small glass funnel and small rinses of DMQ, and made to volume. The sample was returned to the dry 15 mL polybottle, capped tightly and stored in the refrigerater till further analysis.

Care was taken during the digestion procedure to avoid contamination. All equipment and containers that came into contact with the samples were carefully acid cleaned. The Nuclepore filters were soaked for 4 hours in 6 N HCl, soaked overnight in dilute HCl, rinsed well with DMQ water and dried in acid cleaned Petri slides. Acid cleaned plastic tweezers were used to handle the filters. All pipette tips used in this procedure were cleaned in a 1 N HCl solution. Teflon bombs, Teflon beakers, and 10 mL glass volumetric flasks were soaked in 1 N HCl for a minimum of 4 hours and well rinsed with DMQ water between digests.

The subsamples for the metal, Si and P analysis were filtered onto Nuclepore filters as described above and folded over while still wet to prevent the loss of sample during weighing and transfering procedures.

One standard reference sediment (BCSS-1) and two control sediments (MT-1 and MT-2) were digested frequently along with the samples. The percent recoveries, averages, standard deviations and number analyzed for these reference materials are reported in Tables 4 to 7. Blanks were measured by digesting Nuclepore filters that had been treated in exactly the same manner as the filters used with the samples. Blanks were measured for the filterless samples by carrying out a digestion using only the acids. The blanks were carried through the digestion, dilution and analytical procedures, with treatment identical to that of the samples. The variability in the blanks was used to determine the detection and quantitation limits for the various analysis.

2.2.5 Determination of Fe, Al and Ca by Atomic Absorption Spectrophotometry

After the digestion and evaporation steps, the samples were analyzed for Fe, Al and Ca using flame atomic absorption spectrophotometry FAAS (Varian AA - 1475 series with programmable sample changer Varian Model 55) and graphite furnace atomic absorption spectrophotometry GFAAS (Perkin Elmer Model 503 interfaced to an IBM compatible computer). Instrumental settings are given in Tables 7, 8 and 9. Samples of less than 2 mg were analyzed by GFAAS only, samples between 2 and 10 mg were analyzed by GFAAS and FAAS and samples greater than 10 mg were analyzed by FAAS only. All dilutions of samples and standards were made using a HCl/double Milli-Q matrix (20 mL concentrated Seastar HCl per liter) which was also used as the zero standard in the calibration runs.

A multi-element standard was prepared from commercial atomic absorption spectroscopy standards with concentrations of 1 mg/mL. The standards were prepared to match as closely as possible the proportions of the elements present in the control sediments MT-1 and MT-2. Primary standards were prepared which contained Fe, Al, Ca, Pb, Mn, Ni, Mg, Na, K, Cu, Zn, Cd and Co in

a ratio of 4:7:1:0.002:0.1:0.01:2:3:1:0.004:0.02:0.005:0.004. Secondary standards were prepared by dilution of the primary standard to span the required calibration ranges.

All samples greater than 2 mg (digest sets A,B,C and D) were analyzed for Fe, Al and Ca by FAAS, the calibration ranges and dilutions being dictated by sample weight. Table 8 outlines the instrument settings, the calibration ranges, the sample dilutions and the detection limits for the FAAS analysis. The Varian AA- 1475 is controlled by a computer program run by an Apple computer which applies a curve fitting routine to the calibration data and calculates the sample concentrations in μg/mL. For Al and Ca runs (and for Fe set C), the trays were set up such that the first six and the last six samples on the trays were a repeat of the calibration standards. This was done to overcome difficulties encountered with the acetylene/nitrous oxide flame which has a tendency to cause a build-up of carbon on the burner head changing the character of the flame. Further, standards (usually the middle and zero standard) were run throughout a set at a chosen interval to provide an additional check on the calibration drift. The start and end envelopes of standards were averaged and fitted to a straight line used to calculate the sample concentrations which are then compared to the concentrations calculated by the program. In some cases the calibration data were treated as a straight line to get the best possible values for the samples. Where there was good agreement between the the calibration curves, the values calculated by the program were chosen. In all cases, the concentrations were well above the quantitation limit. Where it was judged that better values could be obtained using linear regression on the start and end envelopes of standards, the sample concentrations calculated in this manner were chosen. The standard pooled deviation for the duplicate samples (independent digests) were calculated and are reported in Table 3. Percent recoveries were calculated for the reference and control sediments (BCSS-1, MT-1 and MT-1) and are reported in Tables 4, 5 and 6.

For the FAAS analysis,the percent concentrations of Al, Ca and Fe were calculated as:

$$\%X = \frac{(Cs - Cb) \times v \times 100}{Fd \times Ws \times F \times 1000}$$

where:

% X Percent concentration of Al, Ca or Fe in the sample.

Cs Concentration of element in μg/mL.

Cb Average concentration of the blank (in μg/mL per mg filter times the weight of the filter OR μg/mL if no filter was used).

v Volume that sample is made up to after evaporation (10 mL).

Fd Dilution factor of the sample (0.1, 0.01 etc.).

Ws Weight of the sample in mg.

F Fraction of total sample evaporated (accounts for removal of the Si subsample).

Samples weighing less than 10 mg (sets D and E) were analyzed for Fe, Ca and Al by GFAAS. Tables 9 and 10 outline the instrumental settings, detection limits and the programs for the GFAAS analysis. Every tray (maximum of 30 samples) contains 2 or 3 complete digest sets (i.e. 9 to 12 samples per digest set). There are 1 or 2 standard reference sediments in each set. A series of standards was run before and after each tray of 30 samples.

Due to incomplete atomization of Ca, it was necessary to make an adjustment to the peak heights. Samples were run such that between samples, there was no sample introduced to the tube

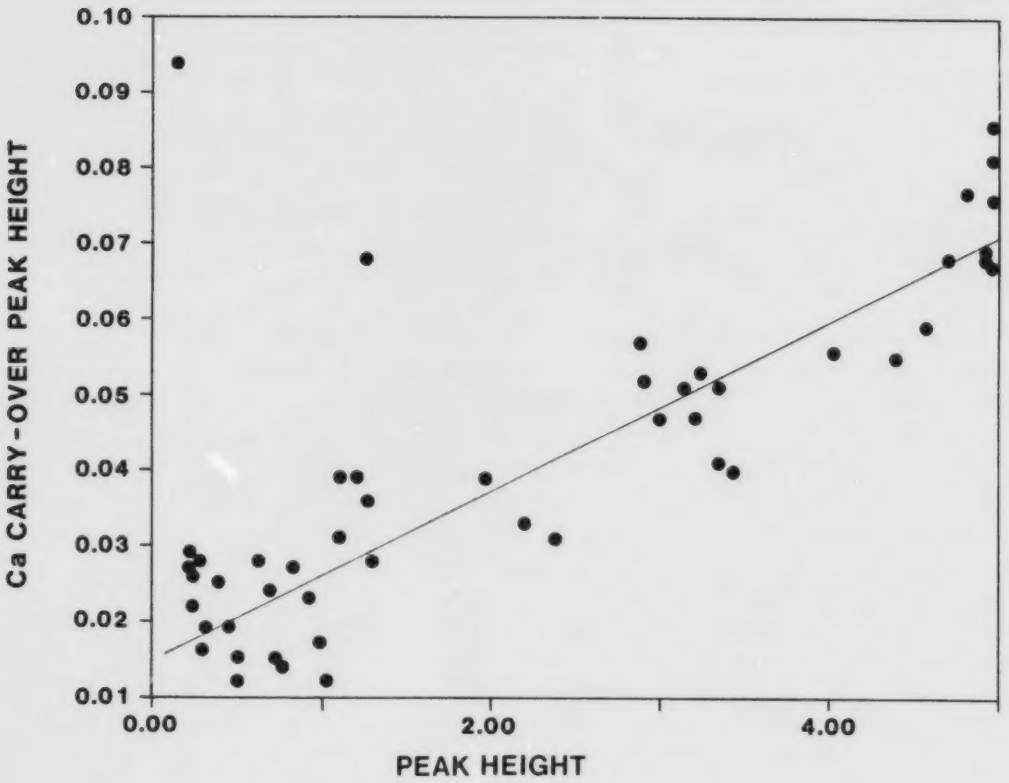

Figure 9: Graphite furnace carry-over of calcium

and the carry-over peak heights were measured and correlated with the sample peak heights (Figure 9).

This carry-over correction was made when the previous peak height was higher than 1.0 unit using the following equation:

$$P = Pi - ((0.014688 + 0.011279(Pp)) - 0.021444)$$

where:

P The peak height used for calculating concentrations.

Pi The initial, uncorrected peak height.

Pp The peak height of the previous measurement.

For Ca, eleven standards were run at the beginning and end of each tray (0.00, 0.01, 0.02, 0.04, 0.06, 0.08, 0.12, 0.20, 0.30, 0.40 and 0.80 μg/mL). A linear calibration was used for concentrations up to 0.08 μg/mL (if there was a good line, the linear calibration was up to 0.4 μg/mL). For concentrations between 0.08 and 0.40, when a linear calibration was not appropriate, a curve was fitted using a quadratic equation (0.00 to 0.40 μg/mL). The values reported are corrected for the blank values of the filters.

For Fe, the standards 0.00, 0.04, 0.08, 0.16, 0.32, 0.48 and 0.80 μg/mL were run before and after each tray of samples. Linear calibration was used for concentrations up to 0.16 μg/mL. For Fe concentrations between 0.16 and 0.80, a quadratic curve fit was used. The values reported are corrected for the blank values of the filters.

For Al, the standards 0.00, 0.05, 0.10, 0.20, 0.30, 0.40 and 0.60 μg/mL were run before and after each tray of samples. Linear calibration was used for concentrations between 0.05 and 0.30 μg/mL (or up to 0.40 μg/mL). For concentrations less than 0.05 or greater than 0.30 μg/mL, a quadratic equation was used. As the blanks were considered indistinguishable from the instrumental noise, there was no blank correction made for the filter blanks.

The equations used in the determination of Fe, Ca and Al by GFAAS are as follows :

- Linear calibration

$$C = \frac{(P - (A \times a0 + B \times b0))}{(A \times a1 + B \times b1)}$$

where:

P Peak height or peak area.

C Concentration in μg/mL.

B Any number between 0 and 1. The first sample in each tray is 0, the last one is 1. The ascending step is 1/(N-1), N is the number of samples between the beginning and end standard envelopes.

A Any number between 1 and 0. The first sample in each tray is 1, the last one is 0. The descending step is 1/(N-1), N is the number of samples between the first and end standard envelopes.

a0 The constant in the regression output of the standard curve run before the sample tray.

b0 The constant in the regression output of the standard curve run after the sample tray.

a1 The X coefficient in the regression output of the standard curve run before the sample tray.

b1 The X coefficient in the regression output of the standard curve run after the sample tray.

- Quadratic curve fitting:

$$C = \frac{-(A \times a1 + B \times b1) + [(A \times a1 + B \times b1)^2 - 4 \times (A \times a0 + B \times b0 - P) \times (A \times a2 + B \times b2)]^{0.5}}{2 \times (A \times a2 + B \times b2)}$$

where:

C Concentration in μg/mL.

A Same as in equation for linear calibration.

B Same as in equation for linear calibration.

P Peak height or peak area.

a0, a1, a2 Constants from the equation $P = a0 + a1 \times C + a2 \times C^2$ which was run before the sample tray.

b0, b1, b2 Constants from the equation $P = b0 + b1 \times C + b2 \times C^2$, which was run after the sample tray.

Calculation of the percentages of Fe, Ca and Al in the samples:

$$\%X = \frac{C \times Fd \times V \times 100}{F \times Ws \times 1000}$$

where:

V Volume that the sample is made up to after evaporation (10 mL).

%X Percentage of Fe, Ca or Al in the sample.

C Concentration of the analyzed dilution of the sample (μg/mL).

Fd Dilution factor (20, 40, 100 or 200)

Ws Weight of sample in mg.

F Fraction of total sample evaporated (accounts for removal of Si subsample).

2.2.6 Analysis of Si and P

Si and P determinations were performed using Technicon Autoanalyzer II components. The Si levels in the digested trap samples were determined according to Technicon Industrial Methods No.186-72 and P levels were determined using a modified Technicon method [*Brynjolfson*, 1973]. The sample used for P analysis was taken from the digest after the evaporation step. Sagami standards were prepared to calibrate secondary standards, which were prepared daily. For the Si

analysis, the standards were matrix-matched to the samples (1.2 g boric acid, 35 g NaCl, 0.3 mL conc. HNO_3, 0.3 mL conc. $HClO_4$, 0.3 mL conc HF per liter solution). The wash solution was 35 g/L NaCl and the matrix solution was inserted frequently throughout the run to establish the baseline. For the P analysis, 30.5 g/L NaCl was used as a matrix for preparing the standards and for establishing the baseline. Approximately 10 % of the samples were digested in duplicate and pooled standard deviation values calculated for both the Si and P analysis (Table 3). Table 10 gives the percent recovery values obtained for BCSS-1 and the control samples, MT-1 and MT-2.

For digest sets A, B and C, all the samples run for Si were well above the quantitation limit (QL). QL is defined as 10 times the standard deviation of the blanks run with that set. For sets D and E (sample weights < 10 mg), the blanks were much more erratic and there were problems in that some of the samples were below the QL. For sets D and E, the Si blanks were diluted in the same manner as the samples and the average blank for the run was subtracted from the concentration values for the samples. Any of the samples that were below either the detection or quantitation limit are flagged in the Appendix tables.

The % Si and % P values for the trap samples were calculated as follows:

$$\%\mathrm{Si} = \frac{((\mathrm{C} - \mathrm{B}) \times 28.086 \times V \times 10^{-6}}{(\mathrm{D} \times \mathrm{W} \times \mathrm{F})} \times 100$$

$$\%\mathrm{P} = \frac{((\mathrm{C} - \mathrm{B}) \times 30.974 \times \mathrm{V} \times 10^{-6}}{(\mathrm{D} \times \mathrm{W} \times \mathrm{F})} \times 100$$

where:

C Concentration of Si in μg-at/L.

B Concentration of blank in μg-at/L.

V Final volume of first dilution after the digestion for Si or after the evaporation for P.

D Dilution factor of second dilution (if any).

W Weight of sample digested (mg).

F Fraction of total sample used for Si analysis or fraction of total sample evaporated for P.

2.2.7 Particulate Organic Carbon and Nitrogen Analysis

After splitting, the sediment trap samples were filtered onto precombusted silver filters (25 mm, 0.8 μm) and dried overnight at 50 °C for POC/PON analysis. The samples were stored in glass or plastic Petri dishes and inorganic carbon was removed using two techniques. For samples less than 5 mg that contained only fine particles, the filters were exposed to concentrated HCl vapours in a covered glass dessicator for 12 hours and then dried for 12 to 24 hours at 50 °C. For samples that were greater than 5 mg or for samples that contained large particles, several drops of 0.5 N HCl were placed on the filter and left for half an hour. The filter was then dried for 12 to 24 hours at 50°C.

The samples were analyzed using a Perkin-Elmer Model 240 elemental analyzer standardized with acetanalide. Samples weighing less than 20 mg were treated to remove inorganic carbon and analyzed whole. Those weighing between 20 and 40 mg were also treated to remove inorganic carbon and then cut with clean scissors and analyzed in two runs and the carbon and nitrogen values added together. For samples weighing more than 40 mg, approximately 10 mg of sample

was removed using a clean spatula and placed on a combusted, preweighed silver filter (25 mm, 0.8 μm), weighed to 0.01 mg and then treated with several drops of 0.5 N HCl to remove inorganic carbon as previously described. Blanks were prepared by combusting silver filters (25 mm, 0.8 μm) at 450 °C for half an hour and cooling in a dessicator. The filters were then transferred to glass or plastic Petri dishes and weighed to 0.01 mg on a AE163 Mettler balance. The filters were then rinsed three times with glass distilled water on a Gelman filtration head, dried at 50°C for 24 hours, placed in a dessicator to cool and reweighed. Four sets of blanks were processed to discern any differences between using glass versus plastic petri dishes or between the two acidification methods to remove inorganic carbon. These blanks were treated as follows :

1. P SOLN - Filter placed in plastic Petri dish and treated with several drops of 0.5 N HCl.
2. G SOLN - Filter placed in glass Petri dish and treated with several drops of 0.5 N HCl.
3. P FUME - Filter was placed in a plastic Petri dish and exposed to fuming HCl.
4. G FUME - Filter was placed in a glass Petri dish and exposed to fuming HCl.

In all there were 11 blanks run and taken together, they were equivalent to 0.51 μg N (s = 0.74, n = 11) and 11.91 μg C (s = 6.07, n = 11) and these values were subtracted from the sample values. The detection limits as three times the standard deviation of the blanks are 2.22 μg N and 18.21 μg C. Duplicate analyses were run on 10 samples for the second deployment of the traps. The pooled standard deviation for the 10 duplicates is 0.41% C (for the range 2.89% C to 13.90% C) and 0.092% N (for the range 0.36% to 2.33% N). To check the subsampling technique on samples weighing greater than 40 mg, duplicates were run on three samples. The pooled standard deviation for these duplicates was 0.15% C (range 4.5% to 8.7% C) and 0.006% N (range 0.5% to 1.2% N).

For the analysis of the first deployment on the traps, many of the samples were dried on aluminum foil which in some cases resulted in corrosion of the foil. These samples have not been used for calculation of fluxes and are indicated by the following designations in the tables in the appendix:

> Dried on foil, no visible corrosion.

>> Dried on foil, small amount of corrosion.

>>> Dried on foil, more extensive corrosion.

>>>> Dried on foil, large holes in foil.

G Dried on glass Petri dish.

P Dried on plastic Petri dish.

2.2.8 Pigment Analyses

Fluorometry The chlorophyll a and phaeo-pigments were determined fluorometrically with a Turner Design fluorometer calibrated using pure chlorophyll [*Parsons, T.R., Y. Maita, C.M. Lalli*, 1984].

HPLC Detailed pigment analysis was performed on samples from the first deployment of SS1-1 and on samples from all stations of the second deployment of the sequential traps (stations SS1-2, SS2-2, SS3-2 AND SS4-2). Chlorophylls and carotenoids, along with their breakdown products, were separated and quantified by high performance liquid chromatography (HPLC). Additional water and ice algae samples were analyzed to aid in identification of types and sources of pigments.

Subsamples from both the >500 μm and <500 μm size fractions were filtered onto 47 mm diameter Whatman GF/F filters. Filters were stored in cryovials immersed in liquid nitrogen until processed. For extraction of the pigments, filters were placed in vials containing 2 mL of 90 % acetone and held at minus 40 °C overnight, followed by sonication in a refrigerated water bath. Pigment extracts were clarified by filtration through 25 mm or 13 mm diameter 0.45 μm Gelman nylon acrodisc syringe filters. In some cases, the volume of extracts was reduced prior to analysis by bubbling with nitrogen gas, with the sample in the dark at 4 °C, to concentrate the pigments.

The reverse-phase chromatographic separation involved a 30 minute linear gradient, from initial solvent conditions of 80:10:10 methanol:water:tetrabutylammonium acetate ion-pairing reagent [*Mantoura and Llewellyn*, 1983] to final conditions of 80:20 acetone:water, at a flow rate of 2 mL per min. A Waters Nova-Pak C18 column (10 cm x 8 mm ID, 4 μm particle size) in a radial compression module (Waters RCM100) was employed along with a pre-column guard unit (Waters Guard-Pak pre-column module with C18 pre-column insert). Injection volumes ranged between 200 and 500 μL.

Detection was by diode-array spectrophotometry (Hewlett Packard model 8452A diode-array spectrophotometer) and fluorimetry (Perkin Elmer 204 spectrofluorimeter). Fluorescence data were collected at 1 s intervals. The excitation wavelength was 430 nm and a high band pass filter (Wratten no. 16 color specification: 50% transmission at 542 nm, 90% at 620 nm) was employed for emmission detection. Absorbance data were collected at every 2 nm from 400 nm to 672 nm, also at 1 s intervals. Absorbance chromatograms were derived from the diode array data for 430 nm and 664 nm, to quantify carotenoids and chlorophyll derivatives respectively. Standards containing known concentrations of chlorophylls a and b, xanthophyll and/or β-carotene (Sigma Chemical Co.) were run regularly to standardize the instrument. Pheophytins a and b were prepared from their respective chlorophyll antecedents by acidification to establish additional pigment standards.

2.2.9 Identity and Abundance of Zooplankton in >500 μm Fraction

The identity and abundance of zooplankton retained in the sediment traps were analyzed for the second deployment of the sequential sediment traps. Samples were screened through a 500 μm Nitex mesh. Animals retained on the screen were removed, identified, counted and dried. Representative specimens of each taxa were preserved in 5% formaldehyde for later confirmation of identity. In some samples preservation was poor with the result that some of all taxa could not be sorted and counted. In particular, sample SS1-2 cup#1 had a large number of animals that could not be counted. Sample SS3-2 cup#2 was not analyzed. The number and types of animals retained in the sediment traps cannot be directly interpreted in terms of flux or community composition. Animals are differentially attracted or repelled by traps [*Harbison and Gilmer*, 1986, *Lee et al.* 1988] and differences in trap designs may introduce bias in any quantitative analysis. To facilitate comparison between traps, quantitative data for taxa found in abundance, copepods and pteropods, are presented in numbers of animals retained per day per metre squared. We emphasize that these should not be considered as fluxes. For rare animals, the number retained in each cup is given. An analysis of variation between traps in the taxa and abundances of animals retained as well as some of the processes controlling this is presented elsewhere [*Forbes et al*, 1992].

3 References

Baker, E.T., and H.B. Milburn, 1983. An instrument for the investigation of particle fluxes, *Continental Shelf Research*, **1**, 425-435.

Brynjolfson, S.J., 1973. A modification of the Technicon methodology for the determination of orthophosphate in sea water. Paper presented at Water Resources Service, Vancouver, B.C.

Forbes, J.R., R.W. Macdonald, E.C. Carmack, K. Iseki and M.C. O'Brien, 1992. Zooplankton retained by sequential sediment traps along the Beaufort Sea shelf break during winter. *Can. J. Fish. Aquat. Sci.*, in press.

Harbison, G.R and R.W Gilmer, 1986. Effects of animal behavior on sediment trap collections: implications for the calculation of aragonite fluxes. *Deep Sea Res.*, **33**, 1017-1024.

Kenney, B.C., 1985. Sediment resuspension and currents in Lake Manitoba, *J. Great Lakes Res.* **11**, 85-96.

Lee, C., S. Wakeham and J.I Hedges, 1988. The measurement of oceanic particle flux - are "swimmers" a problem? *Oceanogr.* **2**, 34-36.

Macdonald, R.W, 1985. Guidelines for obtaining, calculating and reporting quality statements for chemical analysis of marine sediments (Unpublished Manuscript).

Mantoura, R.F.C. and C.A. Lewellyn, 1983. The rapid determination of algal chlorophyll and carotenoid pigments and their breakdown products in natural waters by reverse-phase high- performance liquid chromatography. *Anal. Chim. Acta* **151**, 111-117.

McCullough, D. et al., 1988a. NOGAP B.6: Volume 1: Beaufort Sea current measurements, March-August 1987. *Can. Data Rep. Hydrogr. Ocean Sci.*, **60**, 42pp.

McCullough, D., R.W. Macdonald, K. Iseki, and E.C. Carmack, 1988b. NOGAP B.6; Volume 3: Beaufort Sea current measurements, September, 1987 - March, 1988. *Can. Data Rep. Hydrogr. Ocean Sci.*, **60**, 37pp.

Noriki, S., K. Nakanishi, T. Fukawa, M. Uematsu, T. Uchida and S. Tsunogai, 1980. Use of a sealed Teflon bomb for the decomposition followed by the determination of chemical constituents of various marine samples. *Bull. Fac. Fish Hokkaido Univ.*, **31**, 354-361.

Parsons, T. R., Y. Maita, C.M. Lalli, 1984. A manual of chemical and biological methods for seawater analysis. Oxford, Pergamon Press, 173pp.

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TABLE 1 : SEQUENTIAL SEDIMENT TRAP INFORMATION
STATION LOCATION AND DEPLOYMENT / RECOVERY TIMES

STATION	LATITUDE	LONGITUDE	DEPLOYMENT TIME PST	DEPLOYMENT DATE (MM/DD/YY)	RECOVERY TIME PST	RECOVERY DATE (MM/DD/YY)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	BOTTOM DEPTH (m)	TRAP DEPTH (m)	TRAP TYPE
SS1-1	70 47.5 N	127 30.8 W	18:44	03/29/87	14:00	08/22/87	88.8	234.6	214	159	HONJO
SS1-2	70 45.8 N	127 23.6 W	22:50	08/22/87	15:00	03/23/88	235.0	448.6	200	145	HONJO
SS2-1	71 28.8 N	128 36.1 W	16:00	05/22/87	08:45	08/24/87	142.7	236.4	173	118	BAKER
SS2-2	71 27.3 N	128 39.8 W	20:16	08/24/87	14:14	03/24/88	236.8	449.6	176	121	BAKER
SS3-1	70 58.7 N	134 28.2 W	17:39	03/31/87	12:40	08/18/87	90.7	230.5	180	125	HONJO
SS3-2	70 57.2 N	134 23.9 W	20:48	08/18/87	13:00	03/22/88	230.9	447.5	183	128	HONJO
SS4-1	69 58.9 N	138 36.1 W	15:46	04/26/87	11:27	08/26/87	116.7	238.5	268	213	BAKER
SS4-2	69 51.0 N	138 29.6 W	22:57	08/26/87	17:50	03/25/88	239.0	450.7	200	145	BAKER

NOTE :
1. See Tables in Appendix for collection periods within each deployment.
2. All moorings were configured such that the traps were 55 metres from the bottom.

TABLE 2 : MULTI-TRAP AND KENNY TRAP DEPLOYMENT INFORMATION AND STATION LOCATIONS

STATION	TRAP DEPTH (m)	CUP #	LATITUDE	LONGITUDE	DEPLOYMENT TIME PST	DEPLOYMENT DATE (MM/DD/YY)	RECOVERY TIME PST	RECOVERY DATE (MM/DD/YY)	START JULIAN DAY	FINISH JULIAN DAY	DURATION (DAYS)	BOTTOM DEPTH (m)
MT3	6	B-2 A1	69 47.9 N	133 24.2 W	11:15	08/02/87	16:30	09/06/87	214.469	249.688	35.219	9.8
MT3	8	B-4 B1										
MT4-1	5	F-5m	69 53.3 N	133 24.0 W	21:18	04/09/87	15:30	05/06/87	99.888	126.646	26.758	14
MT4-1	10	G-10m										
MT4-2	5	G-5m	69 53.3 N	133 24.0 W	17:18	05/06/87	17:15	05/31/87	126.721	151.719	24.998	14
MT4-2	10	F-10m										
MT5-1	10	D-10m	70 01.0 N	133 26.0 W	15:40	04/07/87	11:10	04/29/87	97.653	119.465	21.813	32
MT5-1	15	C-15m										
MT5-1	20	E-20m										
MT5-2	10	D-10m	70 02.7 N	133 21.5 W	15:50	04/29/87	13:20	05/27/87	119.660	147.556	27.896	32
MT5-2	15	C-15m			15:50	04/29/87	13:30	05/27/87	119.660	147.563	27.903	32
MT5-2	20	E-20m			15:50	04/29/87	13:40	05/27/87	119.660	147.569	27.910	32
MT7	17	B-5 I1	70 15.6 N	133 40.5 W	18:50	08/06/87	16:30	09/06/87	218.785	249.688	30.903	47
MT7	42	B-30 J1										
MT9-1	10	A-10m	70 44.0 N	134 12.3 W	14:10	04/04/87	17:50	04/29/87	94.590	119.743	25.153	67
MT9-1	40	B-40m										
MT9-2	10	A-10m	70 40.0 N	134 13.5 W	18:45	04/29/87	12:00	05/24/87	119.781	144.500	24.719	60
MT9-2	40	B-40m										
K5			70 01.0 N	134 11.0 W	11:42	04/07/87	16:40	05/27/87	97.488	147.694	50.207	14
K4			69 53.3 N	133 24.0 W	16:00	04/10/87	16:34	05/31/87	100.667	151.690	51.024	28
K3			69 47.6 N	133 24.0 W	09:08	08/02/87	17:16	09/06/87	214.381	249.719	35.339	7

NOTE :
Moorings at stations MT5-1, MT5-2, MT9-1, MT9-2 and K5 began to drift with ice during the deployment periods.

TABLE 3 : STANDARD POOLED DEVIATION FOR DUPLICATES
FE, AL, CA, SI AND P ANALYSIS

PARAMETER	TYPE OF ANALYSIS	SET	Sp 63-500 FRACTION	63-500 # DUPS	# PAIRS DELETED	Sp <63 FRACTION	<63 # DUPS	# PAIRS DELETED
%Fe	COMBINED	ALL SETS	1.307	23	0	0.153	47	0
%Fe		ALL SETS	0.242	21	2			
%Al	FAAS	A,B,C,D	0.477	12	0	1.252	7	0
%Al	GFAAS	D,E	0.807	18	0			
%Ca	FAAS	A,B,C,D	0.487	12	0	0.249	44	1
%Ca	GFAAS	D,E	0.332	18	0	0.406	6	0
%Si	AA	ALL SETS	1.528	24	0	1.209	52	0
%Si	AA	A,B,C	0.507	6	0	0.644	42	0
%Si	AA	D,E	1.74	18	0	2.421	10	0
%Si	AA	D	1.058	11	0	2.843	7	0
%Si	AA	E	2.454	7	0	0.825	3	0
%P	AA	ALL SETS	0.073	25	0	0.014	43	0
%P	AA	ALL SETS	0.0313	24	1			

TABLE 4 : PERCENT RECOVERIES – FE ANALYSIS

REFERENCE SEDIMENT	DIGEST SET	PARA-METER	FAAS OR GFAAS	% FE EXPECTED	ACTUAL $\bar{X}$	S	N	CALCULATED % RECOVERY
BCSS-1	A	% Fe	FAAS	3.287	3.158	0.097	5	96.08
BCSS-1	B	% Fe	FAAS	3.287	3.174	0.152	3	96.56
BCSS-1	C	% Fe	FAAS	3.287	3.081	0.096	4	93.73
BCSS-1	D	% Fe	FAAS-pgm	3.287	2.795	0.477	8	85.03
BCSS-1	D	% Fe	FAAS-pgm	3.287	3.046	0.129	6	92.67
BCSS-1	D	% Fe	FAAS-#1	3.287	3.080	0.493	8	93.70
BCSS-1	D	% Fe	FAAS-#1	3.287	3.339	0.102	6	101.60
BCSS-1	D	% Fe	FAAS-#2	3.287	3.084	0.458	8	93.82
BCSS-1	D	% Fe	FAAS-#2	3.287	3.325	0.116	6	101.16
BCSS-1	D	% Fe	GFAAS	3.287	3.026	0.516	8	92.06
BCSS-1	D	% Fe	GFAAS	3.287	3.294	0.156	6	100.21
BCSS-1	E	% Fe	GFAAS	3.287	3.336	0.291	4	98.14
BCSS-1	F	% Fe	GFAAS	3.287	3.390	0.122	6	103.13
MT-1	A	%Fe	FAAS	3.490	3.387	0.174	4	97.05
MT-1	B	%Fe	FAAS	3.490	3.371	0.020	2	96.59
MT-1	C	%Fe	FAAS-pgm	3.490	3.286	0.056	3	94.15
MT-1	C	%Fe	FAAS-#1	3.490	3.298	0.112	3	94.50
MT-1	D	%Fe	FAAS-pgm	3.490	3.301	0.198	4	94.58
MT-1	D	%Fe	FAAS-#1	3.490	3.507	0.169	4	100.49
MT-1	D	%Fe	FAAS-#2	3.490	3.517	0.084	4	100.77
MT-1	D	%Fe	GFAAS	3.490	3.769	0.344	4	107.99
MT-1	E	%Fe	GFAAS	3.490	3.587	0.203	4	102.78
MT-1	F	%Fe	GFAAS	3.490	3.682	0.056	6	105.50
MT-2	A	%Fe	FAAS	3.920	4.207	0.219	4	107.32
MT-2	B	%Fe	FAAS	3.920	3.588	0.068	2	91.53
MT-2	C	%Fe	FAAS-pgm	3.920	3.727	0.072	3	95.08
MT-2	C	%Fe	FAAS-#1	3.920	3.727	0.068	3	95.08
MT-2	D	%Fe	FAAS-pgm	3.920	3.689	0.084	4	94.11
MT-2	D	%Fe	FAAS-#1	3.920	3.993	0.140	4	101.86
MT-2	D	%Fe	FAAS-#2	3.920	3.866	0.121	4	98.62
MT-2	D	%Fe	GFAAS	3.920	4.066	0.147	4	103.72
MT-2	E	%Fe	GFAAS	3.920	4.116	0.585	4	105.00
MT-2	F	%Fe	GFAAS	3.920	4.298	0.301	6	109.64

NOTE :

1. FAAS-pgm refers to data analyzed using curve fitting program.
2. FAAS-#1 and -#2 refer to data calculated using linear regression.

TABLE 5 : PERCENT RECOVERIES – AL ANALYSIS

REFERENCE SEDIMENT	DIGEST SET	PARA-METER	FAAS OR GFAAS	% AL EXPECTED	ACTUAL $\bar{X}$	S	N	CALCULATED % RECOVERY
BCSS-1	A	%Al	FAAS	6.261	6.327	0.350	5	101.05
BCSS-1	B	%Al	FAAS	6.261	6.643	0.223	3	106.11
BCSS-1	C	%Al	FAAS	6.261	6.073	0.814	4	97.00
BCSS-1	C	%Al	FAAS	6.261	6.472	0.202	3	103.36
BCSS-1	D	%Al	FAAS	6.261	6.098	1.238	8	97.39
BCSS-1	D	%Al	FAAS	6.261	6.720	0.508	6	107.33
BCSS-1	D	%Al	GFAAS	6.261	5.163	0.930	8	82.46
BCSS-1	D	%Al	GFAAS	6.261	5.632	0.366	6	89.95
BCSS-1	E	%Al	GFAAS	6.261	4.995	0.539	4	79.77
BCSS-1	F	%Al	GFAAS	6.261	6.223	0.809	6	99.40
BCSS-1	F	%Al	GFAAS	6.261	6.469	0.604	5	103.33
BCSS-1	E+F	%Al	GFAAS	6.261	5.732	0.929	10	91.55
MT-1	A	%Al	FAAS	6.637	7.041	0.264	4	106.09
MT-1	B	%Al	FAAS	6.637	7.251	0.330	2	109.24
MT-1	C	%Al	FAAS	6.637	6.714	0.059	3	101.12
MT-1	D	%Al	FAAS	6.637	6.870	0.454	4	103.51
MT-1	D	%Al	GFAAS	6.637	5.602	1.043	4	84.40
MT-1	E	%Al	GFAAS	6.637	6.523	0.528	4	98.28
MT-1	F	%Al	GFAAS	6.637	6.624	0.803	6	99.81
MT-2	A	%Al	FAAS	7.412	9.213	0.571	4	124.30
MT-2	B	%Al	FAAS	7.412	7.952	0.175	2	107.30
MT-2	C	%Al	FAAS	7.412	7.250	0.213	3	97.82
MT-2	D	%Al	FAAS	7.412	8.152	0.351	4	109.99
MT-2	D	%Al	GFAAS	7.412	6.566	0.176	4	88.59
MT-2	E	%Al	GFAAS	7.412	6.092	0.383	4	82.19
MT-2	F	%Al	GFAAS	7.412	7.703	0.968	6	103.92

NOTE :
1. MT-2, SET D, GFAAS - one value eliminated.

TABLE 6 : PERCENT RECOVERIES – CA ANALYSIS

REFERENCE SEDIMENT	DIGEST SET	PARA-METER	FAAS OR GFAAS	% CA EXPECTED	ACTUAL $\bar{X}$	S	N	CALCULATED % RECOVERY
BCSS-1	SETS A-D	%Ca	FAAS	0.543	0.561	0.077	21	130.32
BCSS-1	SETS D,E,F	%Ca	GFAAS	0.543	0.635	0.12	17	116.94
MT-1	SETS A-D	%Ca	FAAS	3.842	3.846	0.238	13	100.1
MT-1	SETS D,E,F	%Ca	GFAAS	3.842	3.577	0.333	14	93.103
MT-2	SETS A-D	%Ca	FAAS	1.129	1.189	0.065	13	105.31
MT-2	SETS D,E,F	%Ca	GFAAS	1.129	1.14	0.092	14	100.974

NOTE :

1. For BCSS-1 sets D,E and F, one high value was eliminated

TABLE 7 : FAAS INSTRUMENTAL AND ANALYTICAL INFORMATION

DIGEST SET	METAL	WAVE-LENGTH (nm)	LAMP CURRENT (ma)	SLIT WIDTH (nm)	FUEL	BACK-GRND CORR.	INTEGRA-TION TIME (sec)	# RDNGS	CALIB-RATION RANGE (ug/ml)	DELAY (sec)	SMPL DIL.	D.L. (ug/ml)	Q.L. (ug/ml)	# BLANKS
A	Fe	248.3	5	0.2	air-acet	yes	0.5	8	0-15	2.0	1/100	0.019	0.062	8
B	Fe	248.3	5	0.2	air-acet	yes	0.5	8	0-15	2.0	1/100	0.040	0.133	3
C	Fe	248.3	5	0.2	air-acet	yes	0.5	8	0-15	2.0	1/10	0.262	0.872	6
D	Fe	248.3	5	0.2	air-acet	no	0.3	8	0-100	1.5	1/1	1.541	5.136	10
A	Al	309.3	10	0.5	acet/nitr ox	no	0.3	8	0-100	2.0	1/10	0.300	1.003	7
B	Al	309.3	10	0.5	acet/nitr ox	no	0.3	8	0-100	2.0	1/10	0.000	0.000	3
C	Al	309.3	10	0.5	acet/nitr ox	no	0.3	8	0-40	2.0	1/10	0.223	0.074	6
D	Al	309.3	10	0.5	acet/nitr ox	no	0.3	8	0-100	2.0	1/1	0.755	2.518	10
A	Ca	422.7	3.5	0.5	acet/nitr ox	yes	0.3	8	0-2	1.5	1/100	0.008	0.026	8
B	Ca	422.7	3.5	0.5	acet/nitr ox	yes	0.3	8	0-2	1.5	1/100	0.008	0.026	3
C	Ca	422.7	3.5	0.5	acet/nitr ox	yes	0.5	8	0-4	2.0	1/10	0.015	0.050	10
D	Ca	422.7	5.0	0.5	acet/nitr ox	yes	0.5	8	0-20	2.0	1/1	0.241	0.803	18

NOTE :

D.L. and Q.L. refer to detection limit and quantitation limit respectively.

Air-acet refers to air / acetylene fuel.

Acet-nitr ox refers to acetylene / nitrous oxide fuel.

TABLE 8 : GFAAS INSTRUMENTAL AND ANALYTICAL INFORMATION

METAL	Fe	Al	Ca
DIGEST SETS	D,E	D,E	D,E
WAVELENGTH (nm)	248.6	309.3	422.5
INJECTION VOLUME (ul)	10	10	10
SLIT SETTING	3	4	3
BACKGROUND CORRECTION	no	no	no
L'VOV PLATFORM TUBE	yes	yes	yes
DILUTIONS	1/40	1/40	1/40
	1/20	1/20	1/20
	1/100	1/100	1/100
		1/200	
CALIBRATION RANGE (ug/ml)	0-0.8	0-0.4	0-0.4
DETECTION LIMIT (ug/ml)	0.009	0.022	0.006
QUANTITATION LIMIT (ug/ml)	0.030	0.060	0.020

TABLE 9 : HGA 400 PROGRAM FOR GFAAS ANALYSIS

	Fe	Al	Ca
		all except	
	all samples	small samples	all samples
STEPS :			
1	150 5/10	150 5/10	150 5/10
2	1200 5/10 B12 R13	1600 5/15 B16 R18	2000 10/15 B22 R23
3	2600 0/2 R	2600 0/2 R	2700 0/2 R
4	20 1/3 R	20 1/3 R	2000 1/4 R
5	20 1/2	201/10	2700 0/5
6			1300 1/4
7			2700 0/5
		Small samples	
1		150 5/10	
2		1600 5/10	
3		1600 1/5 B2 R4 Mini	
4		2600 0/2 R Mini	
5		20 1/3 R Mini	
6		20 1/20	

NOTE :
Each step consists of : temperature, ramp time / hold time.
R, B and Mini refer to read on, baseline on, and mini-flow on.
The numbers following R and B indicate a time delay in seconds.

TABLE 10 : PERCENT RECOVERIES – SI AND P ANALYSIS

REFERENCE SEDIMENT	DIGEST SET	PARA-METER	TYPE ANALYSIS	%SI, %P EXPECTED	ACTUAL $\bar{X}$	S	N	CALCULATED % RECOVERY
BCSS-1	ALL SETS	%Si	AA	30.9	24.458	5.112	32	79.15
BCSS-1	SETS A,B,C	%Si	AA	30.9	28.482	2.294	13	92.17
BCSS-1	SETS D,E,F	%Si	AA	30.9	21.704	4.67	19	70.24
BCSS-1	SET D	%Si	AA	30.9	21.097	5.721	8	68.27
BCSS-1	SETS E,F,G	%Si	AA	30.9	22.146	3.979	11	71.67
MT-1	ALL SETS	%Si	AA	26.396	20.926	4.197	24	79.28
MT-1	SETS A,B,C	%Si	AA	26.396	25.087	1.743	9	95.04
MT-1	SETS D,E,F	%Si	AA	26.396	18.429	3.064	15	69.82
MT-1	SET D	%Si	AA	26.396	20.205	1.978	4	76.55
MT-1	SETS E	%Si	AA	26.396	17.784	3.202	11	67.37
MT-2	ALL SETS	%Si	AA	21.766	17.107	5.47	23	78.59
MT-2	SETS A,B,C	%Si	AA	21.766	22.148	2.463	9	101.75
MT-2	SETS D,E,F	%Si	AA	21.766	13.866	4.243	14	63.7
MT-2	SET D	%Si	AA	21.766	16.429	2.302	4	75.48
MT-2	SETS E	%Si	AA	21.766	12.841	4.488	10	58.99
BCSS-1	ALL SETS	%P	AA	0.067	0.0673	0.015	32	100.43
BCSS-1	ALL SETS	%P	AA	0.067	0.0677	0.0068	30	101.01
MT-1	ALL SETS	%P	AA	0.092	0.0895	0.0093	23	97.27
MT-2	ALL SETS	%P	AA	0.137	0.1389	0.0089	23	101.38

5 Appendix A

SEQUENTIAL SEDIMENT TRAP FLUX AND CHEMICAL DATA

This appendix includes Tables and scanning electron microscopy photographs from the first deployment. The Tables, which cover both deployments comprise 11 pages each for SS1, SS2, SS3 and SS4. Data are ordered as follows:

1. Collection periods
2. Total fluxes
3. Aluminum
4. Calcium
5. Iron
6. Silica
7. Phosphorus
8. Chlorophyll and phaeo-pigments (63-500, < 63 μm)
9. Chlorophyll and phaeo-pigments (> 500 μm, < 500 μm)
10. Particulate carbon and nitrogen (63-500, < 63 μm)
11. Particulate carbon and nitrogen (< 500 μm)

The method of calculation is described in the text. The data reported for the <500 μ fraction are calculated from the 63-500 μ and the <63 μ data.

DEFINITION OF FOOTNOTES IN APPENDIX A TABLES

1. Sample black in appearance
2. Hydrogen sulphide smell
3. Zooplankton badly decomposed and fragmented
4. Supernatant very yellow in colour
5. Oily film on surface
6. Extra $HgCl_2$ added
7. Sample frozen in refrigerater before sieving step
8. Below QL for 63-500 μm sample

9. Below QL for <63 μm sample
10. No 63-500 μm sample
11. No flux data as funnel clogged prior to collection period
12. No data
13. Trap recovered on this cup - no flux data
14. Percent value for <63 μm sample suspect
15. Possible Fe contamination

ABBREVIATIONS

PST – Pacific standard time
SEQ# - Sequence number
mg/m^2/d – flux units (milligrams per metre squared per day)
ZOOPLKTN – Zooplankton
PHAEO – Phaeo-pigment
CHLA – Chlorophyll
>500, <500, 63-500, <63 - size fractions in μm.

LIST OF SEM PHOTOGRAPHS

SS1-1 – Cup #2, 63-500 μm (5)
SS1-1 – Cup #4, 63-500 μm (4)
SS1-1 – Cup #4, <63 μm (3)
SS1-1 – Cup #9, 63-500 μm (9)
SS1-1 – Cup #13, 63-500 μm (6)
SS3-1 – Cup #4, 63-500 μm (3)
SS3-1 – Cup #4, < 63 μm (1)
SS3-1 – Cup #9, >500 μm (5)
SS3-1 – Cup #9, 63-500 μm (8)

TABLE SS1 : SEQUENTIAL SEDIMENT TRAP STATION SS1 – COLLECTION PERIODS

STATION	START JULIAN DAY	FINISH JULIAN DAY	COLLECTION PERIOD (days)	SEQ #	CUP #	START HOUR PST	START DATE (MM/DD/YY)	FINISH HOUR PST	FINISH DATE (MM/DD/YY)	COMMENTS
SS1-1	94.0	104.0	10.0	1	12	00:00	04/04/87	00:00	04/14/87	
	104.0	114.0	10.0	2	13	00:00	04/14/87	00:00	04/24/87	
	114.0	124.0	10.0	3	1	00:00	04/24/87	00:00	05/04/87	
	124.0	134.0	10.0	4	2	00:00	05/04/87	00:00	05/14/87	
	134.0	144.0	10.0	5	3	00:00	05/14/87	00:00	05/24/87	
	144.0	154.0	10.0	6	4	00:00	05/24/87	00:00	06/03/87	
	154.0	164.0	10.0	7	5	00:00	06/03/87	00:00	06/13/87	
	164.0	174.0	10.0	8	6	00:00	06/13/87	00:00	06/23/87	
	174.0	184.0	10.0	9	7	00:00	06/23/87	00:00	07/03/87	
	184.0	194.0	10.0	10	8	00:00	07/03/87	00:00	07/13/87	
	194.0	204.0	10.0	11	9	00:00	07/13/87	00:00	07/23/87	
	204.0	214.0	10.0	12	10	00:00	07/23/87	00:00	08/02/87	
	214.0	224.0	10.0	13	11	00:00	08/02/87	00:00	08/12/87	
SS1-2	244.0	260.0	16.0	14	1	00:00	09/01/87	00:00	09/17/87	
	260.0	276.0	16.0	15	2	00:00	09/17/87	00:00	10/03/87	
	276.0	292.0	16.0	16	3	00:00	10/03/87	00:00	10/19/87	
	292.0	308.0	16.0	17	4	00:00	10/19/87	00:00	11/04/87	
	308.0	324.0	16.0	18	5	00:00	11/04/87	00:00	11/20/87	
	324.0	340.0	16.0	19	6	00:00	11/20/87	00:00	12/06/87	
	340.0	356.0	16.0	20	7	00:00	12/06/87	00:00	12/22/87	
	356.0	7.0	16.0	21	8	00:00	12/22/87	00:00	01/07/88	
	7.0	23.0	16.0	22	9	00:00	01/07/88	00:00	01/23/88	
	23.0	39.0	16.0	23	10	00:00	01/23/88	00:00	02/08/88	
	39.0	55.0	16.0	24	11	00:00	02/08/88	00:00	02/24/88	
	55.0	71.0	16.0	25	12	00:00	02/24/88	00:00	03/11/88	
	71.0	83.6	12.6	26	13	00:00	03/11/88	15:00	03/23/88	Recovered on cup #13

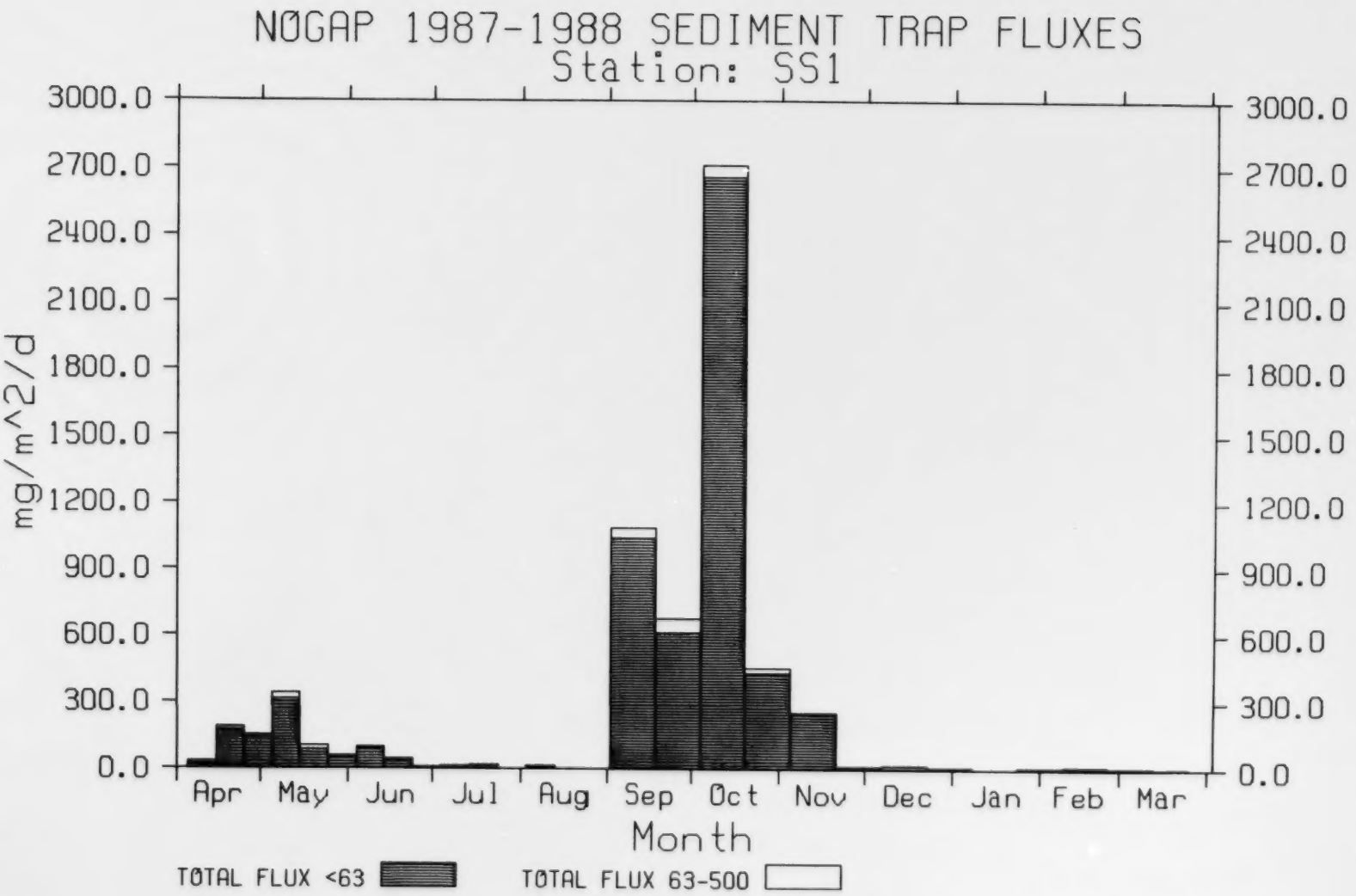

NØGAP 1987-1988 SEDIMENT TRAP FLUXES
Station: SS1
3000.0
2700.0
2400.0
2100.0
1800.0
1500.0
1200.0
900.0
600.0
300.0
0.0
mg/m^2/d
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Month
TOTAL FLUX <63
TOTAL FLUX 63-500

TABLE SS1 CONT. : TOTAL FLUXES – SEQUENTIAL TRAP STATIONS SS1-1 AND SS1-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL TRAPPED >500 (mg/m^2/d)	ZOOPLKTN TRAPPED >500 (mg/m^2/d)	ALGAE FLUX >500 (mg/m^2/d)	TOTAL FLUX <500 (mg/m^2/d)	TOTAL FLUX 63-500 (mg/m^2/d)	TOTAL FLUX <63 (mg/m^2/d)	NOTES
SS1-1	94.0	104.0				33.33	3.19	30.15	
	104.0	114.0	53.33	51.70	1.63	188.82	11.45	177.38	
	114.0	124.0				154.72	11.24	143.48	
	124.0	134.0				340.71	27.74	312.97	
	134.0	144.0	30.50	29.52	0.98	104.14	17.26	86.88	
	144.0	154.0				60.23	5.58	54.65	
	154.0	164.0	19.38	18.73	0.65	100.09	4.47	95.61	
	164.0	174.0	25.45	24.55	0.90	45.28	4.94	40.34	
	174.0	184.0				12.76	3.56	9.20	
	184.0	194.0	91.44	89.01	2.43	15.63	5.33	10.30	
	194.0	204.0				19.24	4.78	14.46	
	204.0	214.0	55.19	53.59	1.60	4.27	1.57	2.70	
	214.0	224.0				17.44	4.52	12.92	
SS1-2	244.0	260.0	18.18			1083.78	44.07	1039.71	1
	260.0	276.0	77.61	8.49	69.12	674.47	61.42	613.05	1,2
	276.0	292.0	3.33			2711.74	50.51	2661.24	1
	292.0	308.0	19.16	6.61	12.55	452.51	25.42	427.09	1
	308.0	324.0	41.92	24.19	17.73	254.74	8.68	246.06	
	324.0	340.0			0.20	13.72	3.09	10.63	1
	340.0	356.0	0.02		0.02	21.91	1.11	20.80	
	356.0	7.0	0.85	0.69	0.16	11.46	0.44	11.02	1,2
	7.0	23.0	0.43		0.43	4.05	0.76	3.29	1,2
	23.0	39.0	38.36	37.87	0.49	10.97	0.67	10.30	
	39.0	55.0	2.15	1.64	0.51	15.89	1.08	14.80	5,7
	55.0	71.0	55.81	55.19	0.62	12.41	0.36	12.05	1,2
	71.0	83.6	82.80	81.45	1.36	5.94	0.82	5.13	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : %Al AND Al FLUXES - SEQUENTIAL TRAP STATIONS SS1-1 AND SS1-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Al	ALGAE >500 %Al	<500 %Al	63-500 %Al	<63 %Al	Al FLUX TOTAL >500 (mg/m^2/d)	Al FLUX ALGAE >500 (mg/m^2/d)	Al FLUX <500 (mg/m^2/d)	Al FLUX 63-500 (mg/m^2/d)	Al FLUX <63 (mg/m^2/d)	NOTES
SS1-1	94.0	104.0			7.55	5.35	7.78			2.516	0.171	2.345	
	104.0	114.0			8.68	6.59	8.82			16.390	0.754	15.637	
	114.0	124.0			7.28	5.40	7.42			11.259	0.607	10.652	
	124.0	134.0			6.12	4.89	6.23			20.855	1.356	19.499	
	134.0	144.0			6.55	6.58	6.54			6.820	1.135	5.685	
	144.0	154.0			4.51	3.31	4.63			2.716	0.185	2.531	
	154.0	164.0			2.10	3.64	2.03			2.104	0.163	1.942	
	164.0	174.0			2.37	3.59	2.22			1.071	0.177	0.894	
	174.0	184.0			3.59	2.69	3.94			0.458	0.096	0.362	
	184.0	194.0			2.74	1.73	3.27			0.428	0.092	0.336	
	194.0	204.0			3.01	2.93	3.04			0.579	0.140	0.439	
	204.0	214.0			2.86	1.56	3.62			0.122	0.024	0.098	
	214.0	224.0			3.69	2.81	4.00			0.643	0.127	0.516	
SS1-2	244.0	260.0	2.62		7.92	6.11	8.00	0.476		85.853	2.695	83.159	
	260.0	276.0		5.11	8.01	8.53	7.96		3.530	54.030	5.238	48.792	
	276.0	292.0	4.44		8.90	6.67	8.95	0.148		241.447	3.368	238.079	
	292.0	308.0		4.33	8.07	6.43	8.17		0.544	36.525	1.635	34.890	
	308.0	324.0		8.46	8.26	7.02	8.31		1.500	21.048	0.609	20.439	
	324.0	340.0			7.85	7.91	7.83			1.077	0.245	0.832	
	340.0	356.0			8.45	6.84	8.54			1.852	0.076	1.776	
	356.0	7.0			6.51	4.56	6.59			0.746	0.020	0.726	
	7.0	23.0			6.43	4.26	6.93			0.260	0.032	0.228	
	23.0	39.0			7.50	4.87	7.67			0.823	0.033	0.790	
	39.0	55.0			7.50	2.83	7.85			1.192	0.031	1.161	
	55.0	71.0			1.60	3.13	1.55			0.198	0.011	0.187	14
	71.0	83.6			6.32	2.83	6.87			0.375	0.023	0.352	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : %Ca AND Ca FLUXES – SEQUENTIAL TRAP STATIONS SS1-1 AND SS1-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Ca	ALGAE >500 %Ca	<500 %Ca	63-500 %Ca	<63 %Ca	Ca FLUX TOTAL >500 (mg/m^2/d)	Ca FLUX ALGAE >500 (mg/m^2/d)	Ca FLUX <500 (mg/m^2/d)	Ca FLUX 63-500 (mg/m^2/d)	Ca FLUX <63 (mg/m^2/d)	NOTES
SS1-1	94.0	104.0			1.30	1.01	1.33			0.434	0.032	0.401	
	104.0	114.0			1.37	0.99	1.40			2.592	0.113	2.479	
	114.0	124.0			0.99	0.75	1.01			1.538	0.084	1.454	
	124.0	134.0			0.97	0.73	0.99			3.309	0.202	3.107	
	134.0	144.0			0.91	0.86	0.93			0.953	0.149	0.804	
	144.0	154.0			0.73	0.86	0.72			0.440	0.048	0.392	
	154.0	164.0			0.38	1.06	0.35			0.381	0.047	0.334	
	164.0	174.0			0.69	1.77	0.56			0.313	0.088	0.225	
	174.0	184.0			2.28	4.59	1.38			0.291	0.163	0.127	
	184.0	194.0			1.69	2.93	1.05			0.265	0.156	0.108	
	194.0	204.0			1.53	2.87	1.09			0.295	0.137	0.158	
	204.0	214.0			2.90	6.16	1.01			0.124	0.096	0.027	
	214.0	224.0			2.21	6.33	0.76			0.385	0.286	0.099	
SS1-2	244.0	260.0	0.92		1.47	3.52	1.39	0.167		15.969	1.551	14.417	
	260.0	276.0		2.01	1.29	1.00	1.31		1.388	8.670	0.611	8.058	
	276.0	292.0	6.12		2.47	2.52	2.47	0.204		67.046	1.274	65.773	
	292.0	308.0		0.92	2.36	1.27	2.43		0.115	10.694	0.323	10.371	
	308.0	324.0		1.47	1.90	1.46	1.91		0.261	4.834	0.127	4.707	
	324.0	340.0			2.11	2.21	2.08			0.289	0.068	0.221	
	340.0	356.0			2.11	1.80	2.13			0.462	0.020	0.442	
	356.0	7.0			4.79	1.41	4.93			0.549	0.006	0.543	
	7.0	23.0			1.85	1.28	1.98			0.075	0.010	0.065	
	23.0	39.0			1.52	1.92	1.50			0.167	0.013	0.154	
	39.0	55.0			1.37	1.31	1.37			0.218	0.014	0.203	
	55.0	71.0			1.01	1.79	0.98			0.125	0.006	0.119	14
	71.0	83.6			1.28	1.21	1.68			0.076	0.010	0.086	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : %Fe AND Fe FLUXES - SEQUENTIAL TRAP STATIONS SS1-1 AND SS1-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Fe	ALGAE >500 %Fe	<500 %Fe	63-500 %Fe	<63 %Fe	Fe FLUX TOTAL >500 (mg/m^2/d)	Fe FLUX ALGAE >500 (mg/m^2/d)	Fe FLUX <500 (mg/m^2/d)	Fe FLUX 63-500 (mg/m^2/d)	Fe FLUX <63 (mg/m^2/d)	NOTES
SS1-1	94.0	104.0			4.07	5.06	3.96			1.356	0.161	1.195	
	104.0	114.0			4.29	4.36	4.28			8.092	0.499	7.593	
	114.0	124.0			3.67	3.06	3.72			5.680	0.344	5.336	
	124.0	134.0			3.11	2.60	3.15			10.584	0.722	9.862	
	134.0	144.0			3.41	3.26	3.44			3.551	0.562	2.989	
	144.0	154.0			2.50	1.95	2.56			1.509	0.109	1.400	
	154.0	164.0			1.16	1.88	1.13			1.162	0.084	1.078	
	164.0	174.0			1.19	1.81	1.11			0.538	0.090	0.448	
	174.0	184.0			1.92	1.39	2.13			0.245	0.049	0.196	
	184.0	194.0			1.48	0.91	1.78			0.231	0.049	0.183	
	194.0	204.0			1.74	1.74	1.74			0.335	0.083	0.251	
	204.0	214.0			1.73	0.82	2.25			0.074	0.013	0.061	
	214.0	224.0			2.16	1.71	2.31			0.376	0.077	0.298	
SS1-2	244.0	260.0	1.53		4.03	3.77	4.04	0.277		43.660	1.660	41.999	
	260.0	276.0		2.13	3.92	4.22	3.88		1.473	26.410	2.593	23.817	
	276.0	292.0	4.17		4.14	5.71	4.11	0.139		112.211	2.884	109.327	
	292.0	308.0		1.69	3.92	3.37	3.95		0.212	17.745	0.858	16.888	
	308.0	324.0		4.31	4.12	3.58	4.14		0.764	10.504	0.311	10.193	
	324.0	340.0			3.97	3.88	3.99			0.545	0.120	0.425	
	340.0	356.0			4.14	3.93	4.16			0.908	0.043	0.864	
	356.0	7.0			3.24	3.04	3.25			0.372	0.013	0.358	
	7.0	23.0			3.10	2.73	3.19			0.126	0.021	0.105	
	23.0	39.0			3.85	3.19	3.89			0.422	0.021	0.401	
	39.0	55.0			3.83	2.30	3.94			0.608	0.025	0.583	
	55.0	71.0			0.69	1.53	0.66			0.085	0.006	0.080	14
	71.0	83.6			3.03	3.28	3.92			0.180	0.027	0.201	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : % Si AND Si FLUXES – SEQUENTIAL TRAP STATIONS SS1-1 AND SS1-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Si	ALGAE >500 %Si	<500 %Si	63-500 %Si	<63 %Si	Si FLUX TOTAL >500 (mg/m^2/d)	Si FLUX ALGAE >500 (mg/m^2/d)	Si FLUX <500 (mg/m^2/d)	Si FLUX 63-500 (mg/m^2/d)	Si FLUX <63 (mg/m^2/d)	NOTES
SS1-1	94.0	104.0			21.53	10.43	22.71			7.18	0.33	6.84	
	104.0	114.0			24.08	17.44	24.50			45.46	2.00	43.46	
	114.0	124.0			26.16	20.17	26.63			40.48	2.27	38.21	
	124.0	134.0			28.04	26.12	28.21			95.55	7.25	88.30	
	134.0	144.0			26.56	24.25	27.02			27.66	4.19	23.47	
	144.0	154.0			26.67	9.77	28.40			16.06	0.55	15.52	
	154.0	164.0			32.48	8.43	33.60			32.51	0.38	32.13	8
	164.0	174.0			29.61	9.12	32.11			13.41	0.45	12.96	
	174.0	184.0			10.66	7.43	11.91			1.36	0.26	1.10	
	184.0	194.0			4.97	4.68	5.12			0.78	0.25	0.53	8
	194.0	204.0			12.32	9.33	13.31			2.37	0.45	1.92	8
	204.0	214.0			8.83	3.43	11.97			0.38	0.05	0.32	8
	214.0	224.0			16.18	8.28	18.94			2.82	0.37	2.45	8
SS1-2	244.0	260.0	5.65		24.66	19.80	24.87	1.027		267.30	8.73	258.57	
	260.0	276.0		13.83	24.43	23.42	24.53		9.562	164.75	14.38	150.37	
	276.0	292.0	14.97		25.35	21.61	25.42	0.499		687.34	10.92	676.43	
	292.0	308.0		11.72	23.69	18.43	24.01		1.471	107.22	4.69	102.53	
	308.0	324.0		25.37	24.77	21.29	24.89		4.498	63.09	1.85	61.24	
	324.0	340.0			21.47	17.65	22.59			2.95	0.55	2.40	
	340.0	356.0			23.73	15.08	24.19			5.20	0.17	5.03	
	356.0	7.0			19.81	8.29	20.27			2.27	0.04	2.23	
	7.0	23.0			15.00	8.70	16.45			0.61	0.07	0.54	
	23.0	39.0			21.49	8.61	22.33			2.36	0.06	2.30	8
	39.0	55.0			21.03	4.98	22.21			3.34	0.05	3.29	
	55.0	71.0			2.90	4.12	2.86			0.36	0.01	0.34	8,14
	71.0	83.6			16.87	8.00	18.28			1.00	0.07	0.94	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : % P AND P FLUXES - SEQUENTIAL TRAP STATIONS SS1-1 AND SS1-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %P	ALGAE >500 %P	<500 %P	63-500 %P	<63 %P	P FLUX TOTAL >500 (ug/m^2/d)	P FLUX ALGAE >500 (ug/m^2/d)	P FLUX <500 (ug/m^2/d)	P FLUX 63-500 (ug/m^2/d)	P FLUX <63 (ug/m^2/d)	NOTES
SS1-1	94.0	104.0			0.240	0.333	0.230			80.00	10.60	69.40	
	104.0	114.0			0.166	0.216	0.162			312.91	24.73	288.19	
	114.0	124.0			0.135	0.167	0.133			209.54	18.73	190.80	
	124.0	134.0			0.124	0.164	0.121			423.98	45.40	378.57	
	134.0	144.0			0.169	0.206	0.162			176.45	35.58	140.88	
	144.0	154.0			0.167	0.247	0.159			100.71	13.80	86.92	
	154.0	164.0			0.088	0.145	0.085			88.07	6.50	81.58	
	164.0	174.0			0.100	0.167	0.092			45.50	8.23	37.27	
	174.0	184.0			0.169	0.179	0.166			21.63	6.37	15.26	
	184.0	194.0			0.202	0.182	0.213			31.61	9.70	21.91	
	194.0	204.0			0.192	0.244	0.174			36.84	11.67	25.17	
	204.0	214.0			0.149	0.144	0.152			6.36	2.25	4.11	
	214.0	224.0			0.180	0.203	0.172			31.37	9.16	22.21	
SS1-2	244.0	260.0	0.154		0.195	0.237	0.193	27.94		2108.21	104.46	2003.75	
	260.0	276.0		0.211	0.104	0.136	0.101		145.61	699.66	83.46	616.20	
	276.0	292.0	0.303		0.097	0.103	0.097	10.09		2630.68	51.94	2578.74	
	292.0	308.0		0.166	0.116	0.187	0.112		20.80	526.20	47.59	478.61	
	308.0	324.0		0.154	0.145	0.186	0.144		27.31	369.48	16.11	353.37	
	324.0	340.0			0.186	0.203	0.181			25.56	6.28	19.28	
	340.0	356.0			0.136	0.154	0.135			29.80	1.70	28.10	
	356.0	7.0			0.171	0.175	0.170			19.55	0.77	18.77	
	7.0	23.0			0.262	0.284	0.257			10.60	2.16	8.44	
	23.0	39.0			0.248	0.453	0.235			27.25	3.03	24.22	
	39.0	55.0			0.226	0.293	0.221			35.89	3.17	32.72	
	55.0	71.0			0.176	0.255	0.174			21.86	0.92	20.94	
	71.0	83.6			0.220	0.317	0.204			13.07	2.59	10.48	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : STATIONS SS1-1 AND SS1-2 – CHLOROPHYLL a AND PHAEO-PIGMENT FLUXES (63-500 AND <63 FRACTIONS)

STN	START JULIAN DAY	FINISH JULIAN DAY	63-500 PHAEO (ug/cup)	63-500 PHAEO FLUX (ug/m2/day)	63-500 CHLA (ug/cup)	63-500 CHLA FLUX (ug/m2/day)	<63 PHAEO (ug/cup)	<63 PHAEO FLUX (ug/m2/day)	<63 CHLA (ug/cup)	<63 CHLA FLUX (ug/m2/day)	NOTES
SS1-1	94.0	104.0	39.586	7.777	1.677	0.329	22.392	4.399	1.995	0.392	
	104.0	114.0	188.405	37.015	5.539	1.088	345.899	67.957	21.565	4.237	
	114.0	124.0	342.751	67.338	15.527	3.050	507.671	99.739	69.043	13.564	
	124.0	134.0	518.234	101.814	19.947	3.919	388.080	76.244	34.504	6.779	
	134.0	144.0	126.322	24.818	7.044	1.384	395.426	77.687	17.971	3.531	
	144.0	154.0	30.734	6.038	1.439	0.283	227.016	44.600	11.964	2.350	
	154.0	164.0	40.088	7.876	2.015	0.396	529.021	103.933	48.305	9.490	
	164.0	174.0	106.023	20.830	4.616	0.907	571.380	112.255	34.935	6.863	
	174.0	184.0	40.011	7.861	2.794	0.549	70.334	13.818	6.462	1.270	
	184.0	194.0	28.626	5.624	1.218	0.239	73.341	14.409	3.789	0.744	
	194.0	204.0	41.843	8.221	4.784	0.940	157.735	30.989	15.213	2.989	
	204.0	214.0					46.684	9.172	6.148	1.208	10
	214.0	224.0	26.553	5.217	3.912	0.769	104.223	20.476	12.924	2.539	
SS1-2	244.0	260.0	78.02	9.580	21.33	2.619	545.23	66.949	93.74	11.510	
	260.0	276.0	124.87	15.333	21.53	2.644	628.50	77.173	89.99	11.050	
	276.0	292.0	58.99	7.244	11.05	1.357	266.35	32.706	44.23	5.431	
	292.0	308.0	87.74	10.774	8.30	1.020	175.59	21.560	18.20	2.235	
	308.0	324.0	26.72	3.282	5.10	0.626	154.29	18.945	22.66	2.782	
	324.0	340.0	13.08	1.606	2.94	0.361	12.76	1.567	2.86	0.351	
	340.0	356.0	3.78	0.464	0.34	0.042	29.06	3.569	2.79	0.343	
	356.0	7.0	1.48	0.181	0.29	0.035	16.04	1.970	2.53	0.310	
	7.0	23.0	1.14	0.140	0.23	0.028	2.61	0.321	0.52	0.063	
	23.0	39.0	1.00	0.122	0.15	0.019	6.09	0.748	1.00	0.123	
	39.0	55.0	1.13	0.138	0.30	0.036	11.16	1.370	2.03	0.249	
	55.0	71.0					29.38	3.608	5.24	0.644	10
	71.0	83.6	0.39	0.061	0.11	0.017	3.07	0.477	0.62	0.097	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : STATIONS SS1-1 AND SS1-2 – CHLOROPHYLL a AND PHAEO-PIGMENT FLUXES (>500 ALGAE FRACTION AND <500 FRACTION)

STN	START JULIAN DAY	FINISH JULIAN DAY	ALGAE >500 PHAEO (ug/cup)	ALGAE >500 PHAEO FLUX (ug/m2/day)	ALGAE >500 CHLA (ug/cup)	ALGAE >500 CHLA FLUX (ug/m2/day)	<500 PHAEO (ug/cup)	<500 PHAEO FLUX (ug/m2/day)	<500 CHLA (ug/cup)	<500 CHLA FLUX (ug/m2/day)	NOTES
SS1-1	94.0	104.0					61.978	12.176	3.672	0.721	
	104.0	114.0					534.304	104.971	27.104	5.325	
	114.0	124.0					850.421	167.077	84.570	16.615	
	124.0	134.0					906.314	178.058	54.451	10.698	
	134.0	144.0					521.748	102.505	25.014	4.914	
	144.0	154.0					257.750	50.639	13.403	2.633	
	154.0	164.0					569.110	111.809	50.320	9.886	
	164.0	174.0					677.404	133.085	39.551	7.770	
	174.0	184.0					110.345	21.679	9.256	1.819	
	184.0	194.0					101.966	20.033	5.008	0.984	
	194.0	204.0					199.577	39.210	19.997	3.929	
	204.0	214.0									10
	214.0	224.0					130.776	25.693	16.836	3.308	
SS1-2	244.0	260.0	22.77	2.796	6.36	0.781	623.249	76.529	115.067	14.129	
	260.0	276.0	12.92	1.587	2.37	0.291	753.368	92.506	111.520	13.694	
	276.0	292.0	1.25	0.154	0.21	0.026	325.350	39.950	55.282	6.788	
	292.0	308.0	7.37	0.905	1.03	0.126	263.328	32.334	26.509	3.255	
	308.0	324.0	24.44	3.001	3.70	0.454	181.016	22.227	27.755	3.408	
	324.0	340.0	0.29	0.036	0.07	0.008	25.837	3.173	5.800	0.712	
	340.0	356.0	0.05	0.006	0.01	0.002	32.841	4.033	3.138	0.385	
	356.0	7.0	0.14	0.017	0.03	0.004	17.517	2.151	2.812	0.345	
	7.0	23.0	0.171	0.021	0.068	0.008	3.754	0.461	0.743	0.091	
	23.0	39.0					7.088	0.870	1.152	0.141	
	39.0	55.0	0.05	0.006	0.02	0.003	12.286	1.509	2.322	0.285	
	55.0	71.0	0.31	0.038	0.10	0.012					10
	71.0	83.6	0.46	0.072	0.08	0.012	3.457	0.538	0.736	0.114	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS1 CONT. : STATIONS SS1-1 AND SS1-2 – CARBON AND NITROGEN DATA FOR 63-500 AND <63 FRACTIONS

STATION	START JULIAN DAY	FINISH JULIAN DAY	63-500 C/N	63-500 %N	63-500 %C	N FLUX 63-500 (mg/m^2/d)	C FLUX 63-500 (mg/m^2/d)	<63 C/N	<63 %N	<63 %C	N FLUX <63 (mg/m^2/d)	C FLUX <63 (mg/m^2/d)	NOTES
SS1-1	94.0	104.0	8.19	1.55	12.72	0.0494	0.4054	6.74	0.99	6.65	0.2984	2.0046	
	104.0	114.0	8.16	1.35	11.02	0.1545	1.2612	8.06	0.41	3.29	0.7272	5.8357	
	114.0	124.0	8.31	1.13	9.36	0.1270	1.0513	7.87	0.42	3.33	0.6026	4.7779	
	124.0	134.0	7.63	1.02	7.74	0.2816	2.1459	7.42	0.46	3.42	1.4396	10.7034	
	134.0	144.0	7.99	1.04	8.27	0.1795	1.4265	8.45	0.63	5.26	0.5430	4.5656	
	144.0	154.0	6.75	2.90	19.62	0.1619	1.0952	6.48	0.98	6.33	0.5355	3.4591	
	154.0	164.0	9.94	0.87	8.61	0.0389	0.3850	7.30	0.66	4.80	0.6311	4.5895	
	164.0	174.0	12.15	1.20	14.54	0.0593	0.7184	10.41	0.68	7.10	0.2743	2.8641	
	174.0	184.0	7.45	1.61	11.99	0.0573	0.4268	8.91	1.31	11.67	0.1206	1.0741	
	184.0	194.0	8.13	2.56	20.79	0.1365	1.1085	10.18	1.61	16.42	0.1658	1.6906	
	194.0	204.0	9.57	1.62	15.47	0.0774	0.7395	10.46	1.45	15.13	0.2096	2.1873	
	204.0	214.0	16.82	2.53	42.56	0.0396	0.6669	11.91	1.65	19.60	0.0445	0.5290	
	214.0	224.0	6.57	2.33	15.28	0.1053	0.6907	8.69	1.40	12.17	0.1809	1.5721	
SS1-2	244.0	260.0	7.01	1.20	8.41	0.5289	3.7065	4.05	0.43	9.52	4.4188	98.9561	
	260.0	276.0	7.39	0.87	6.43	0.5344	3.9493	4.74	0.54	8.78	3.3105	53.8124	
	276.0	292.0	9.02	0.43	3.88	0.2172	1.9597	1.37	0.27	5.07	7.1853	135.0331	
	292.0	308.0	6.58	2.53	16.64	0.6431	4.2294	4.51	0.57	7.91	2.4344	33.7926	
	308.0	324.0	7.02	1.22	8.56	0.1059	0.7429	3.00	0.38	8.00	0.9227	19.6846	
	324.0	340.0	8.61	0.79	6.81	0.0244	0.2105	4.55	0.69	6.59	0.0733	0.7008	
	340.0	356.0	11.66	0.47	5.48	0.0052	0.0606	2.62	0.33	7.94	0.0687	1.6517	
	356.0	7.0	9.69	1.61	15.60	0.0071	0.0691	5.53	0.83	6.66	0.0914	0.7341	
	7.0	23.0	10.78	1.99	21.45	0.0151	0.1630	8.56	1.33	6.44	0.0438	0.2117	
	23.0	39.0	19.18	1.54	29.54	0.0103	0.1976	9.12	1.35	6.76	0.1390	0.6957	
	39.0	55.0	7.54	3.96	29.87	0.0429	0.3238	9.26	1.48	6.26	0.2191	0.9261	
	55.0	71.0	11.47	1.94	22.25	0.0070	0.0803	10.40	1.99	5.23	0.2397	0.6295	
	71.0	83.6	7.65	3.31	25.31	0.0270	0.2063	19.23	1.91	10.07	0.0980	0.5164	

See first page of APPENDIX A for explanation of calculations, symbols and notes

TABLE SS1 CONT. : STATIONS SS1-1 AND SS1-2 – CARBON AND NITROGEN DATA FOR <500 FRACTION (SUM OF 63-500 AND <63 FRACTIONS)

STATION	START JULIAN DAY	FINISH JULIAN DAY	<500 C/N	<500 %N	<500 %C	N FLUX <500 (mg/m^2/d)	C FLUX <500 (mg/m^2/d)	NOTES
SS1-1	94.0	104.0	6.929	1.044	7.230	0.348	2.410	
	104.0	114.0	8.049	0.467	3.759	0.882	7.097	
	114.0	124.0	7.990	0.472	3.768	0.730	5.829	
	124.0	134.0	7.465	0.505	3.771	1.721	12.849	
	134.0	144.0	8.293	0.694	5.754	0.723	5.992	
	144.0	154.0	6.530	1.158	7.562	0.697	4.554	
	154.0	164.0	7.425	0.669	4.970	0.670	4.975	
	164.0	174.0	10.739	0.737	7.912	0.334	3.583	
	174.0	184.0	8.438	1.394	11.759	0.178	1.501	
	184.0	194.0	9.261	1.934	17.911	0.302	2.799	
	194.0	204.0	10.196	1.492	15.214	0.287	2.927	
	204.0	214.0	14.207	1.973	28.034	0.084	1.196	
	214.0	224.0	7.907	1.641	12.976	0.286	2.263	
SS1-2	244.0	260.0	20.750	0.457	9.473	4.948	102.663	
	260.0	276.0	15.023	0.570	8.564	3.845	57.762	
	276.0	292.0	18.506	0.273	5.052	7.403	136.993	
	292.0	308.0	12.355	0.680	8.403	3.077	38.022	
	308.0	324.0	19.860	0.404	8.019	1.029	20.427	
	324.0	340.0	9.321	0.713	6.642	0.098	0.911	
	340.0	356.0	23.187	0.337	7.815	0.074	1.712	
	356.0	7.0	8.148	0.860	7.008	0.099	0.803	
	7.0	23.0	6.365	1.454	9.254	0.059	0.375	
	23.0	39.0	5.982	1.362	8.145	0.149	0.893	
	39.0	55.0	4.771	1.649	7.868	0.262	1.250	
	55.0	71.0	2.877	1.989	5.721	0.247	0.710	
	71.0	83.6	5.784	2.102	12.158	0.125	0.723	

See first page of APPENDIX A for explanation of calculations, symbols and notes

TABLE SS2 : SEQUENTIAL SEDIMENT TRAP STATION SS2 – COLLECTION PERIODS

STATION	START JULIAN DAY	FINISH JULIAN DAY	COLLECTION PERIOD (days)	SEQ #	CUP #	START HOUR PST	START DATE (MM/DD/YY)	FINISH HOUR PST	FINISH DATE (MM/DD/YY)	COMMENTS
SS2-1	142.5	145.0	2.5	1	10	11:08	05/22/87	23:08	05/24/87	
	145.0	155.0	10.0	2	0	23:08	05/24/87	23:08	06/03/87	
	155.0	165.0	10.0	3	1	23:08	06/03/87	23:08	06/13/87	
	165.0	175.0	10.0	4	2	23:08	06/13/87	23:08	06/23/87	
	175.0	185.0	10.0	5	3	23:08	06/23/87	23:08	07/03/87	
	185.0	195.0	10.0	6	4	23:08	07/03/87	23:08	07/13/87	
	195.0	205.0	10.0	7	5	23:08	07/13/87	23:08	07/23/87	
	205.0	215.0	10.0	8	6	23:08	07/23/87	23:08	08/02/87	
	215.0	225.0	10.0	9	7	23:08	08/02/87	23:08	08/12/87	
	225.0	235.0	10.0	10	8	23:08	08/12/87	23:08	08/22/87	
	235.0	236.4	1.4	11	9	23:08	08/22/87	08:30	08/24/87	recovered on cup #9
SS2-2	243.8	259.8	16.0	12	1	19:00	08/31/87	19:00	09/16/87	
	259.8	275.8	16.0	13	2	19:00	09/16/87	19:00	10/02/87	
	275.8	291.8	16.0	14	3	19:00	10/02/87	19:00	10/18/87	
	291.8	307.8	16.0	15	4	19:00	10/18/87	19:00	11/03/87	
	307.8	323.8	16.0	16	5	19:00	11/03/87	19:00	11/19/87	
	323.8	339.8	16.0	17	6	19:00	11/19/87	19:00	12/05/87	
	339.8	355.8	16.0	18	7	19:00	12/05/87	19:00	12/21/87	
	355.8	6.8	16.0	19	8	19:00	12/21/87	19:00	01/06/88	
	6.8	22.8	16.0	20	9	19:00	01/06/88	19:00	01/22/88	
	22.8	38.8	16.0	21	10	19:00	01/22/88	19:00	02/07/88	

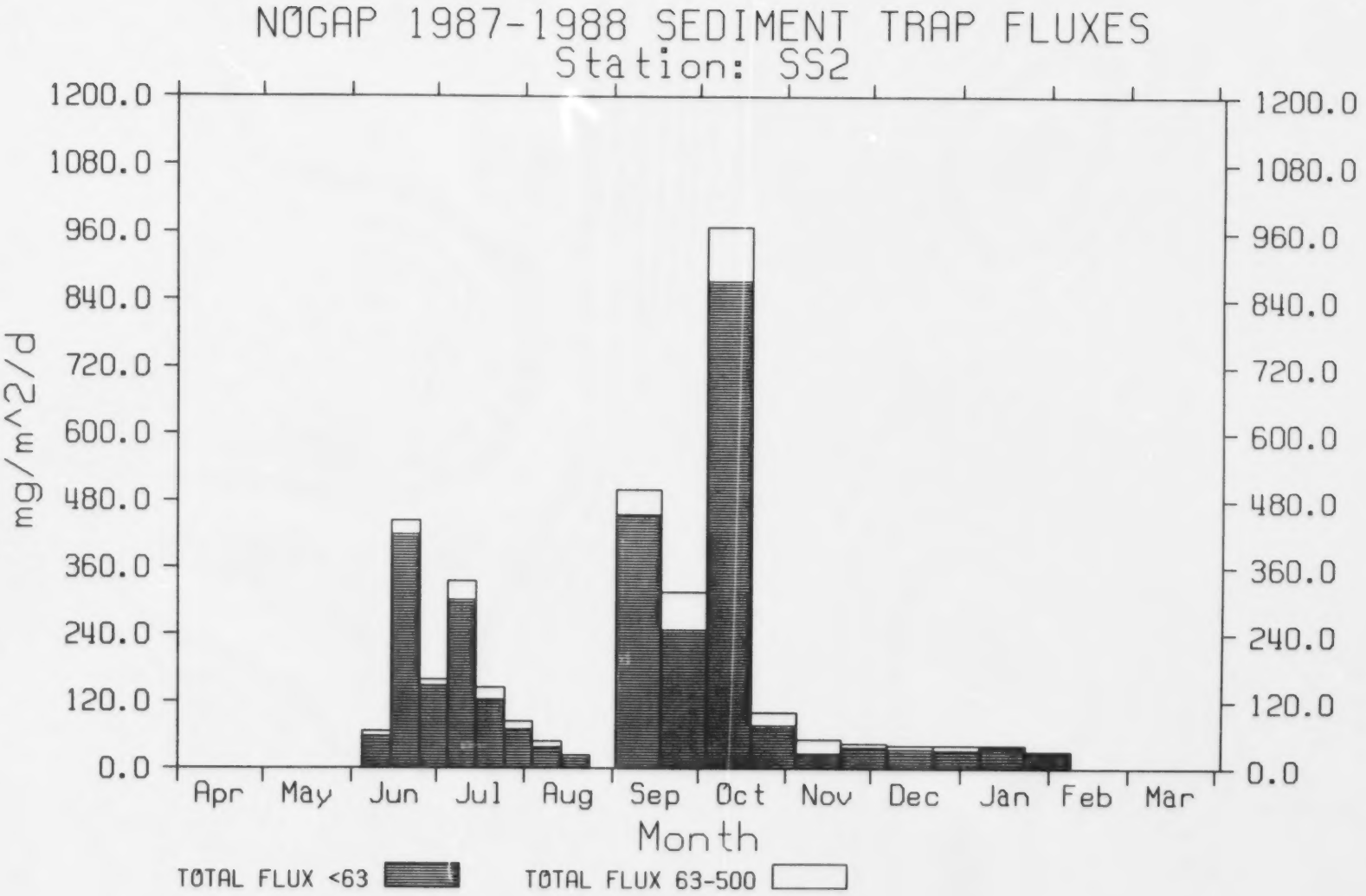

NØGAP 1987-1988 SEDIMENT TRAP FLUXES
Station: SS2
1200.0
1080.0
960.0
840.0
720.0
600.0
480.0
360.0
240.0
120.0
0.0
mg/m^2/d
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Month
TØTAL FLUX <63
TØTAL FLUX 63-500

TABLE SS2 CONT. : TOTAL FLUXES – SEQUENTIAL TRAP STATIONS SS2-1 AND SS2-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL TRAPPED >500 (mg/m^2/d)	ZOOPLKTN TRAPPED >500 (mg/m^2/d)	ALGAE FLUX >500 (mg/m^2/d)	<500 TOTAL FLUX (mg/m^2/d)	63-500 TOTAL FLUX (mg/m^2/d)	<63 TOTAL FLUX (mg/m^2/d)	NOTES
SS2-1	155.0	165.0	194.41		41.81	66.96	9.48	57.48	
	165.0	175.0	91.16		22.69	443.45	25.43	418.02	
	175.0	185.0			27.34	159.55	10.97	148.59	
	185.0	195.0	206.25		26.88	335.16	34.19	300.98	
	195.0	205.0	78.22		27.53	144.40	21.28	123.12	
	205.0	215.0	100.34		20.34	84.92	15.48	69.44	
	215.0	225.0	53.66		24.25	48.28	10.26	38.03	
	225.0	235.0	24.16		13.25	23.41	5.14	18.27	
	235.0	236.4							13
SS2-2	243.8	259.8	91.86	79.45	12.41	498.30	43.98	454.32	4
	259.8	275.8	189.50	164.32	25.18	315.38	68.16	247.22	
	275.8	291.8	293.61	247.56	46.05	968.51	96.22	872.29	
	291.8	307.8	153.29	141.91	11.38	100.57	23.62	76.96	
	307.8	323.8	94.08	82.62	11.46	52.26	24.15	28.12	
	323.8	339.8	62.40	58.05	4.35	44.55	6.00	38.55	
	339.8	355.8	63.92	57.57	6.35	41.80	6.71	35.09	
	355.8	6.8	18.67	15.96	2.71	42.27	10.24	32.03	
	6.8	22.8	22.78	21.39	1.39	42.50	4.45	38.05	
	22.8	38.8	36.23	34.51	1.72	30.68	3.10	27.58	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT. : %Al AND Al FLUXES - SEQUENTIAL TRAP STATIONS SS2-1 AND SS2-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Al	ALGAE >500 %Al	<500 %Al	63-500 %Al	<63 %Al	Al FLUX TOTAL >500 (mg/m^2/d)	Al FLUX ALGAE >500 (mg/m^2/d)	Al FLUX <500 (mg/m^2/d)	Al FLUX 63-500 (mg/m^2/d)	Al FLUX <63 (mg/m^2/d)	NOTES
SS2-1	155.0	165.0			4.15	4.85	4.03			2.776	0.460	2.316	
	165.0	175.0			5.80	3.03	5.97			25.718	0.770	24.948	
	175.0	185.0			2.77	4.07	2.67			4.414	0.446	3.967	
	185.0	195.0			4.38	4.56	4.36			14.696	1.559	13.137	
	195.0	205.0			1.99	2.72	1.86			2.871	0.578	2.293	
	205.0	215.0			3.18	1.70	3.52			2.704	0.262	2.442	
	215.0	225.0			4.21	2.54	4.66			2.034	0.260	1.774	
	225.0	235.0					3.43					0.626	10
	235.0	236.4											13
SS2-2	243.8	259.8			7.31	6.69	7.37			36.421	2.941	33.481	
	259.8	275.8			7.15	7.11	7.17			22.562	4.846	17.716	
	275.8	291.8			8.21	7.57	8.28			79.517	7.283	72.234	
	291.8	307.8			6.47	5.60	6.74			6.509	1.322	5.187	
	307.8	323.8			5.19	3.03	7.04			2.713	0.733	1.980	
	323.8	339.8			4.74	4.05	4.85			2.114	0.243	1.871	
	339.8	355.8			7.59	4.89	8.11			3.174	0.328	2.846	
	355.8	6.8			7.19	5.03	7.88			3.039	0.516	2.524	
	6.8	22.8			8.36	4.16	8.86			3.555	0.185	3.369	
	22.8	38.8			7.43	4.25	7.79			2.280	0.131	2.149	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT. : %Ca AND Ca FLUXES – SEQUENTIAL TRAP STATIONS SS2-1 AND SS2-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Ca	ALGAE >500 %Ca	<500 %Ca	63-500 %Ca	<63 %Ca	Ca FLUX TOTAL >500 (mg/m^2/d)	Ca FLUX ALGAE >500 (mg/m^2/d)	Ca FLUX <500 (mg/m^2/d)	Ca FLUX 63-500 (mg/m^2/d)	Ca FLUX <63 (mg/m^2/d)	NOTES
SS2-1	155.0	165.0			0.79	0.99	0.75			0.526	0.094	0.432	
	165.0	175.0			0.96	1.12	0.95			4.249	0.285	3.964	
	175.0	185.0			0.57	1.20	0.52			0.908	0.131	0.776	
	185.0	195.0			0.82	1.56	0.74			2.757	0.533	2.224	
	195.0	205.0			0.54	1.28	0.41			0.784	0.273	0.511	
	205.0	215.0			1.09	2.23	0.84			0.929	0.346	0.583	
	215.0	225.0			1.48	3.03	1.06			0.715	0.311	0.404	
	225.0	235.0					1.30					0.238	10
	235.0	236.4											13
SS2-2	243.8	259.8		0.64	1.08	1.37	1.05		0.079	5.371	0.602	4.770	
	259.8	275.8		0.60	0.79	0.99	0.74		0.151	2.506	0.672	1.834	
	275.8	291.8			1.15	1.11	1.15			11.105	1.069	10.036	
	291.8	307.8			2.26	5.38	1.30			2.270	1.270	1.000	
	307.8	323.8			4.12	7.13	1.54			2.156	1.723	0.433	
	323.8	339.8			1.28	2.55	1.08			0.569	0.153	0.416	
	339.8	355.8			1.42	1.83	1.34			0.592	0.123	0.470	
	355.8	6.8			1.05	0.95	1.08			0.445	0.097	0.347	
	6.8	22.8			1.57	5.08	1.16			0.668	0.226	0.442	
	22.8	38.8			1.15	2.61	0.99			0.354	0.081	0.273	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT. : %Fe AND Fe FLUXES – SEQUENTIAL TRAP STATIONS SS2-1 AND SS2-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Fe	ALGAE >500 %Fe	<500 %Fe	63-500 %Fe	<63 %Fe	Fe FLUX TOTAL >500 (mg/m^2/d)	Fe FLUX ALGAE >500 (mg/m^2/d)	Fe FLUX <500 (mg/m^2/d)	Fe FLUX 63-500 (mg/m^2/d)	Fe FLUX <63 (mg/m^2/d)	NOTES
SS2-1	155.0	165.0			2.82	3.21	2.76			1.891	0.305	1.586	
	165.0	175.0			3.09	2.05	3.15			13.705	0.522	13.183	
	175.0	185.0			1.30	2.65	1.20			2.068	0.291	1.777	
	185.0	195.0			2.24	2.38	2.23			7.519	0.815	6.704	
	195.0	205.0			1.13	1.66	1.04			1.635	0.353	1.282	
	205.0	215.0			1.86	0.95	2.06			1.579	0.147	1.431	
	215.0	225.0			2.85	1.42	3.24			1.378	0.145	1.233	
	225.0	235.0					1.63					0.299	10
	235.0	236.4											13
SS2-2	243.8	259.8			4.25	3.63	4.31			21.160	1.594	19.566	
	259.8	275.8			4.04	3.92	4.08			12.748	2.672	10.076	
	275.8	291.8			4.43	4.14	4.47			42.953	3.987	38.966	
	291.8	307.8			3.70	3.01	3.91			3.723	0.712	3.012	
	307.8	323.8			2.85	1.67	3.86			1.489	0.403	1.086	
	323.8	339.8			3.68	2.30	3.90			1.640	0.138	1.502	
	339.8	355.8			4.09	3.00	4.30			1.709	0.201	1.508	
	355.8	6.8			4.00	2.96	4.34			1.692	0.303	1.389	
	6.8	22.8			4.60	2.40	4.86			1.956	0.107	1.849	
	22.8	38.8			4.22	2.36	4.43			1.294	0.073	1.221	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT. : % Si AND Si FLUXES – SEQUENTIAL TRAP STATIONS SS2-1 AND SS2-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Si	ALGAE >500 %Si	<500 %Si	63-500 %Si	<63 %Si	Si FLUX TOTAL >500 (mg/m^2/d)	Si FLUX ALGAE >500 (mg/m^2/d)	Si FLUX <500 (mg/m^2/d)	Si FLUX 63-500 (mg/m^2/d)	Si FLUX <63 (mg/m^2/d)	NOTES
SS2-1	155.0	165.0			11.34	12.53	11.15			7.60	1.19	6.41	
	165.0	175.0			27.42	10.43	28.45			121.59	2.65	118.94	8
	175.0	185.0			23.57	12.49	24.39			37.61	1.37	36.24	
	185.0	195.0			26.11	9.54	27.99			87.51	3.26	84.25	
	195.0	205.0			10.73	9.34	10.97			15.49	1.99	13.50	
	205.0	215.0			15.36	6.83	17.27			13.05	1.06	11.99	8
	215.0	225.0			13.42	6.69	15.23			6.48	0.69	5.79	8
	225.0	235.0					8.37					1.53	9,10
	235.0	236.4											13
SS2-2	243.8	259.8		10.68	24.01	18.29	24.56		1.326	119.62	8.04	111.58	
	259.8	275.8		10.16	22.20	14.86	24.22		2.557	70.02	10.13	59.89	
	275.8	291.8			24.61	20.73	25.04			238.36	19.95	218.41	
	291.8	307.8			16.21	7.99	18.73			16.30	1.89	14.42	
	307.8	323.8			9.54	4.91	13.51			4.98	1.19	3.80	8
	323.8	339.8			19.64	15.45	20.29			8.75	0.93	7.82	8
	339.8	355.8			15.83	4.02	18.09			6.62	0.27	6.35	8
	355.8	6.8			13.70	7.42	15.70			5.79	0.76	5.03	8
	6.8	22.8			22.13	12.40	23.26			9.40	0.55	8.85	8
	22.8	38.8			12.14	11.04	12.26			3.72	0.34	3.38	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT : % P AND P FLUXES – SEQUENTIAL TRAP STATION SS2-1 AND SS2-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %P	ALGAE >500 %P	<500 %P	63-500 %P	<63 %P	P FLUX TOTAL >500 (ug/m^2/d)	P FLUX ALGAE >500 (ug/m^2/d)	P FLUX <500 (ug/m^2/d)	P FLUX 63-500 (ug/m^2/d)	P FLUX <63 (ug/m^2/d)	NOTES
SS2-1	155.0	165.0			0.269	0.313	0.262			180.16	29.65	150.51	
	165.0	175.0			0.137	0.135	0.138			609.36	34.30	575.06	
	175.0	185.0			0.129	0.195	0.124			205.64	21.39	184.25	
	185.0	195.0			0.153	0.216	0.146			513.04	73.69	439.36	
	195.0	205.0			0.191	0.252	0.181			276.37	53.54	222.83	
	205.0	215.0			0.214	0.319	0.191			181.93	49.37	132.56	
	215.0	225.0			0.238	0.309	0.219			114.98	31.65	83.33	
	225.0	235.0					0.223					40.77	10
	235.0	236.4											13
SS2-2	243.8	259.8		0.130	0.194	0.197	0.194		16.10	966.83	86.72	880.12	
	259.8	275.8		0.195	0.208	0.223	0.204		49.00	655.40	152.05	503.35	
	275.8	291.8			0.180	0.211	0.176			1741.36	203.06	1538.30	
	291.8	307.8			0.228	0.254	0.221			229.72	60.01	169.71	
	307.8	323.8			0.228	0.201	0.252			119.37	48.59	70.77	
	323.8	339.8			0.207	0.220	0.204			92.01	13.19	78.82	
	339.8	355.8			0.226	0.211	0.229			94.59	14.15	80.44	
	355.8	6.8			0.182	0.221	0.170			77.12	22.61	54.50	
	6.8	22.8			0.220	0.256	0.215			93.32	11.41	81.91	
	22.8	38.8			0.226	0.216	0.227			69.38	6.70	62.68	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT. : STATIONS SS2-1 AND SS2-2 – CHLOROPHYLL a AND PHAEO-PIGMENT FLUXES (63-500 AND <63 FRACTIONS)

STN	START JULIAN DAY	FINISH JULIAN DAY	63-500 PHAEO (ug/cup)	63-500 PHAEO FLUX (ug/m2/day)	63-500 CHLA (ug/cup)	63-500 CHLA FLUX (ug/m2/day)	<63 PHAEO (ug/cup)	<63 PHAEO FLUX (ug/m2/day)	<63 CHLA (ug/cup)	<63 CHLA FLUX (ug/m2/day)	NOTES
SS2-2	243.8	259.8	2.50	4.892	0.51	0.999	21.92	42.810	3.07	6.002	
	259.8	275.8	8.69	16.971	1.39	2.705	20.72	40.470	2.72	5.312	
	275.8	291.8					31.37	61.260	3.02	5.899	10
	291.8	307.8	7.01	13.692	0.61	1.186	4.53	8.854	0.69	1.347	
	307.8	323.8	2.59	5.060	0.39	0.770	2.55	4.988	0.48	0.939	
	323.8	339.8	1.20	2.342	0.18	0.352	1.96	3.825	0.35	0.693	
	339.8	355.8	0.45	0.882	0.07	0.134	0.37	0.718	0.88	1.709	
	355.8	6.8	0.38	0.746	0.09	0.173	1.02	1.990	0.27	0.535	
	6.8	22.8	0.15	0.286	0.03	0.062	1.52	2.965	0.40	0.772	
	22.8	38.8					0.93	1.821	0.33	0.635	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT. : STATIONS SS2-1 AND SS2-2 - CHLOROPHYLL a AND PHAEO-PIGMENT FLUXES (>500 ALGAE FRACTION AND <500 FRACTION)

STN	START JULIAN DAY	FINISH JULIAN DAY	ALGAE >500 PHAEO (ug/cup)	ALGAE >500 PHAEO FLUX (ug/m2/day)	ALGAE >500 CHLA (ug/cup)	ALGAE >500 CHLA FLUX (ug/m2/day)	<500 PHAEO (ug/cup)	<500 PHAEO FLUX (ug/m2/day)	<500 CHLA (ug/cup)	<500 CHLA FLUX (ug/m2/day)	NOTES
SS2-2	243.8	259.8	2.55	4.990	0.33	0.635	24.424	47.702	3.585	7.002	
	259.8	275.8	2.40	4.686	0.16	0.321	29.410	57.442	4.105	8.018	
	275.8	291.8	0.05	0.100	0.02	0.034					10
	291.8	307.8	0.48	0.939	0.07	0.135	11.544	22.547	1.297	2.533	
	307.8	323.8					5.144	10.047	0.875	1.709	
	323.8	339.8	0.10	0.189	0.03	0.062	3.157	6.166	0.535	1.045	
	339.8	355.8	0.05	0.097	0.02	0.042	0.819	1.600	0.944	1.843	
	355.8	6.8	0.04	0.087	0.02	0.041	1.401	2.736	0.363	0.708	
	6.8	22.8	0.03	0.054	0.02	0.033	1.665	3.251	0.427	0.834	
	22.8	38.8	0.03	0.068	0.02	0.048					10

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS2 CONT. : STATIONS SS2-1 AND SS2-2 – CARBON AND NITROGEN DATA FOR 63–500 AND <63 FRACTIONS

STATION	START JULIAN DAY	FINISH JULIAN DAY	63-500 C/N	63-500 %N	63-500 %C	N FLUX 63-500 (mg/m^2/d)	C FLUX 63-500 (mg/m^2/d)	<63 C/N	<63 %N	<63 %C	N FLUX <63 (mg/m^2/d)	C FLUX <63 (mg/m^2/d)	NOTES
SS2-1	155.0	165.0	40.96	0.40	16.57	0.0379	1.5705	7.14	1.12	8.03	0.6438	4.6156	
	165.0	175.0	6.34	1.02	6.47	0.2593	1.6451	6.78	0.53	3.61	2.2155	15.0907	
	175.0	185.0	15.64	1.56	24.40	0.1711	2.6757	6.78	0.97	6.57	1.4413	9.7622	
	185.0	195.0	6.44	1.60	10.27	0.5470	3.5109	7.74	0.90	6.93	2.7088	20.8578	
	195.0	205.0	5.15	4.30	22.13	0.9151	4.7095	7.05	1.84	12.96	2.2655	15.9567	
	205.0	215.0	5.67	3.59	20.38	0.5559	3.1556	7.40	1.32	9.79	0.9166	6.7980	
	215.0	225.0	5.59	3.39	18.92	0.3477	1.9404	6.11	0.97	5.93	0.3689	2.2550	
	225.0	235.0	5.61	2.08	11.65	0.1068	0.5985	5.15	0.57	2.91	0.1041	0.5316	
	235.0	236.4											13
SS2-2	243.8	259.8	6.28	1.69	10.62	0.7432	4.6705	5.15	0.72	7.15	3.2711	32.4964	
	259.8	275.8	5.78	1.66	9.59	1.1314	6.5364	6.44	1.04	6.19	2.5711	15.3087	
	275.8	291.8	6.10	1.18	7.20	1.1354	6.9281	3.81	0.55	6.93	4.7976	60.4260	
	291.8	307.8	5.57	2.32	12.93	0.5479	3.0535	7.25	1.30	5.58	1.0004	4.2918	
	307.8	323.8	5.34	0.96	5.13	0.2318	1.2387	7.19	1.21	5.94	0.3402	1.6708	
	323.8	339.8	6.71	1.01	6.78	0.0606	0.4070	4.91	0.85	5.78	0.3277	2.2268	
	339.8	355.8	7.10	0.94	6.67	0.0631	0.4475	8.08	1.54	5.25	0.5404	1.8411	
	355.8	6.8	4.59	1.91	8.77	0.1956	0.8981	6.32	1.32	4.79	0.4227	1.5334	
	6.8	22.8	4.76	0.80	3.78	0.0354	0.1685	3.98	0.72	5.53	0.2739	2.1030	
	22.8	38.8	5.24	1.47	7.71	0.0455	0.2387	5.37	1.02	5.26	0.2813	1.4521	

See first page of APPENDIX A for explanation of calculations, symbols and notes

TABLE SS2 CONT. : STATIONS SS2-1 AND SS2-2 – CARBON AND NITROGEN DATA FOR <500 FRACTION (SUM OF 63–500 AND <63 FRACTIONS)

STATION	START JULIAN DAY	FINISH JULIAN DAY	<500 C/N	<500 %N	<500 %C	N FLUX <500 (mg/m^2/d)	C FLUX <500 (mg/m^2/d)	NOTES
SS2-1	155.0	165.0	9.075	1.018	9.239	0.682	6.186	
	165.0	175.0	6.762	0.558	3.774	2.475	16.736	
	175.0	185.0	7.714	1.011	7.795	1.612	12.438	
	185.0	195.0	7.485	0.971	7.271	3.256	24.369	
	195.0	205.0	6.498	2.203	14.311	3.181	20.666	
	205.0	215.0	6.760	1.734	11.721	1.472	9.954	
	215.0	225.0	5.855	1.484	8.689	0.717	4.195	
	225.0	235.0	5.356	0.901	4.828	0.211	1.130	
	235.0	236.4						13
SS2-2	243.8	259.8	9.259	0.806	7.459	4.014	37.167	
	259.8	275.8	5.900	1.174	6.927	3.703	21.845	
	275.8	291.8	11.352	0.613	6.954	5.933	67.354	
	291.8	307.8	4.744	1.540	7.304	1.548	7.345	
	307.8	323.8	5.086	1.094	5.567	0.572	2.909	
	323.8	339.8	6.783	0.872	5.912	0.388	2.634	
	339.8	355.8	3.792	1.444	5.475	0.603	2.289	
	355.8	6.8	3.932	1.463	5.753	0.618	2.432	
	6.8	22.8	7.344	0.728	5.345	0.309	2.272	
	22.8	38.8	5.173	1.065	5.511	0.327	1.691	

See first page of APPENDIX A for explanation of calculations, symbols and notes

TABLE SS3 : SEQUENTIAL SEDIMENT TRAP STATION SS3 – COLLECTION PERIODS

STATION	START JULIAN DAY	FINISH JULIAN DAY	COLLECTION PERIOD (days)	SEQ #	CUP #	START HOUR PST	START DATE (MM/DD/YY)	FINISH HOUR PST	FINISH DATE (MM/DD/YY)	COMMENTS
SS3-1	94.0	104.0	10.0	1	1	00:00	04/04/87	00:00	04/14/87	
	104.0	114.0	10.0	2	2	00:00	04/14/87	00:00	04/24/87	
	114.0	124.0	10.0	3	3	00:00	04/24/87	00:00	05/04/87	
	124.0	134.0	10.0	4	4	00:00	05/04/87	00:00	05/14/87	
	134.0	144.0	10.0	5	5	00:00	05/14/87	00:00	05/24/87	
	144.0	154.0	10.0	6	6	00:00	05/24/87	00:00	06/03/87	
	154.0	164.0	10.0	7	7	00:00	06/03/87	00:00	06/13/87	
	164.0	174.0	10.0	8	8	00:00	06/13/87	00:00	06/23/87	
	174.0	184.0	10.0	9	9	00:00	06/23/87	00:00	07/03/87	
	184.0	194.0	10.0	10	11	00:00	07/03/87	00:00	07/13/87	
	194.0	204.0	10.0	11	10	00:00	07/13/87	00:00	07/23/87	funnel clogged, very small amount in cup.
	204.0	214.0	10.0	12	12	00:00	07/23/87	00:00	08/02/87	funnel clogged, very small amount in cup.
	214.0	224.0	10.0	13	13	00:00	08/02/87	00:00	08/12/87	funnel clogged, very small amount in cup.
SS3-2	244.0	260.0	16.0	14	1	00:00	09/01/87	00:00	09/17/87	
	260.0	276.0	16.0	15	2	00:00	09/17/87	00:00	10/03/87	
	276.0	292.0	16.0	16	3	00:00	10/03/87	00:00	10/19/87	
	292.0	308.0	16.0	17	4	00:00	10/19/87	00:00	11/04/87	
	308.0	324.0	16.0	18	5	00:00	11/04/87	00:00	11/20/87	
	324.0	340.0	16.0	19	6	00:00	11/20/87	00:00	12/06/87	
	340.0	356.0	16.0	20	7	00:00	12/06/87	00:00	12/22/87	
	356.0	7.0	16.0	21	8	00:00	12/22/87	00:00	01/07/88	
	7.0	23.0	16.0	22	9	00:00	01/07/88	00:00	01/23/88	
	23.0	39.0	16.0	23	10	00:00	01/23/88	00:00	02/08/88	
	39.0	55.0	16.0	24	11	00:00	02/08/88	00:00	02/24/88	
	55.0	71.0	16.0	25	12	00:00	02/24/88	00:00	03/11/88	
	71.0	83.6	12.6	26	13	00:00	03/11/88	14:00	03/23/88	recovered on cup #13 may be contaminated by rust

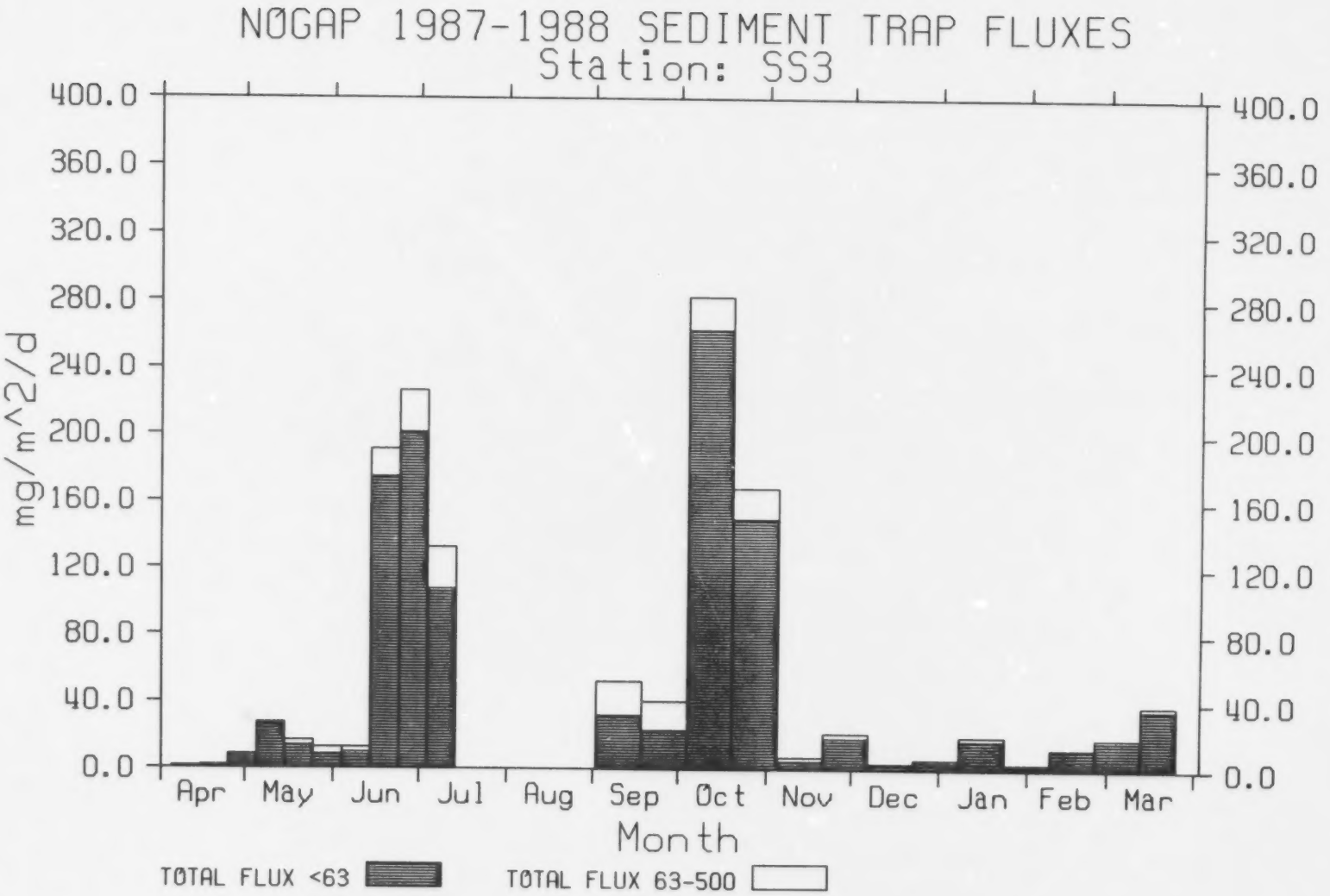

NØGAP 1987-1988 SEDIMENT TRAP FLUXES
Station: SS3
400.0
360.0
320.0
280.0
240.0
200.0
160.0
120.0
80.0
40.0
0.0
mg/m^2/d
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Month
TØTAL FLUX <63
TØTAL FLUX 63-500

TABLE SS3 CONT. : TOTAL FLUXES – SEQUENTIAL TRAP STATIONS SS3-1 AND SS3-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL TRAPPED >500 (mg/m^2/d)	ZOOPLKTN TRAPPED >500 (mg/m^2/d)	ALGAE FLUX >500 (mg/m^2/d)	TOTAL FLUX <500 (mg/m^2/d)	TOTAL FLUX 63-500 (mg/m^2/d)	TOTAL FLUX <63 (mg/m^2/d)	NOTES
SS3-1	94.0	104.0	28.68		1.51	1.20	0.09	1.10	
	104.0	114.0	38.06		1.73	1.89	0.22	1.66	
	114.0	124.0	37.01		1.09	8.65	0.64	8.01	
	124.0	134.0	28.04		0.81	27.75	1.57	26.19	
	134.0	144.0				16.74	2.74	14.00	
	144.0	154.0	23.14		1.00	12.77	3.98	8.79	
	154.0	164.0	26.22		1.64	12.66	2.96	9.70	
	164.0	174.0				191.33	17.07	174.26	
	174.0	184.0				225.78	24.36	201.42	
	184.0	194.0	80.69		71.13	132.59	25.18	107.42	
	194.0	204.0							11
	204.0	214.0							11
	214.0	224.0							11
SS3-2	244.0	260.0	60.84	49.36	11.48	52.67	20.10	32.58	3,4,5,6
	260.0	276.0	179.15			40.63	17.03	23.61	4,5,6
	276.0	292.0	32.84	29.15	3.69	282.16	19.36	262.80	
	292.0	308.0	17.97	12.58	5.39	167.75	17.83	149.92	
	308.0	324.0	5.88	0.80	5.08	7.52	2.63	4.90	
	324.0	340.0	9.84	7.82	2.02	21.71	3.00	18.71	
	340.0	356.0	11.63	9.95	1.68	3.80	1.29	2.51	
	356.0	7.0	10.29	9.87	0.42	6.13	1.58	4.55	
	7.0	23.0	9.52	8.54	0.98	19.71	2.16	17.56	
	23.0	39.0	10.24	10.09	0.15	3.82	0.69	3.13	
	39.0	55.0	13.18	13.06	0.12	12.90	0.84	12.06	
	55.0	71.0	33.74	32.78	0.96	18.64	1.73	16.91	
	71.0	83.6	78.83	63.34	15.49	38.46	2.70	35.76	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : %Al AND Al FLUXES – SEQUENTIAL TRAP STATIONS SS3-1 AND SS3-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Al	ALGAE >500 %Al	<500 %Al	63-500 %Al	<63 %Al	Al FLUX TOTAL >500 (mg/m^2/d)	Al FLUX ALGAE >500 (mg/m^2/d)	Al FLUX <500 (mg/m^2/d)	Al FLUX 63-500 (mg/m^2/d)	Al FLUX <63 (mg/m^2/d)	NOTES
SS3-1	94.0	104.0					5.47					0.060	
	104.0	114.0					6.96					0.116	
	114.0	124.0			7.13	4.10	7.37			0.616	0.026	0.590	
	124.0	134.0			8.09	5.34	8.25			2.245	0.084	2.161	
	134.0	144.0			5.53	4.74	5.69			0.926	0.130	0.796	
	144.0	154.0			5.19	4.92	5.31			0.663	0.196	0.467	
	154.0	164.0			6.53	6.13	6.65			0.826	0.181	0.645	
	164.0	174.0			8.85	5.60	9.17			16.936	0.955	15.981	
	174.0	184.0			6.92	5.25	7.12			15.618	1.279	14.338	
	184.0	194.0			4.33	3.97	4.42			5.744	1.000	4.744	
	194.0	204.0					4.74						11
	204.0	214.0					2.69						11
	214.0	224.0					4.92						11
SS3-2	244.0	260.0		2.30	6.22	6.45	6.08		0.264	3.275	1.295	1.979	
	260.0	276.0			5.54	4.31	6.43			2.251	0.734	1.518	
	276.0	292.0		6.23	8.86	8.32	8.90		0.230	24.995	1.611	23.384	
	292.0	308.0		7.83	8.87	8.87	8.86		0.422	14.872	1.582	13.289	
	308.0	324.0			7.72	6.44	8.40			0.581	0.169	0.412	
	324.0	340.0			8.12	6.53	8.37			1.763	0.196	1.567	
	340.0	356.0			6.42	4.08	7.63			0.244	0.053	0.191	
	356.0	7.0			7.94	6.60	8.41			0.487	0.104	0.383	
	7.0	23.0			9.13	7.59	9.32			1.800	0.164	1.636	
	23.0	39.0			7.98	3.24	9.02			0.304	0.022	0.282	
	39.0	55.0			8.10	4.37	8.36			1.045	0.037	1.008	
	55.0	71.0			7.71	5.99	7.89			1.437	0.103	1.334	
	71.0	83.6			6.69	3.00	6.96			2.571	0.081	2.490	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : %Ca AND Ca FLUXES – SEQUENTIAL TRAP STATIONS SS3–1 AND SS3–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Ca	ALGAE >500 %Ca	<500 %Ca	63–500 %Ca	<63 %Ca	Ca FLUX TOTAL >500 (mg/m^2/d)	Ca FLUX ALGAE >500 (mg/m^2/d)	Ca FLUX <500 (mg/m^2/d)	Ca FLUX 63–500 (mg/m^2/d)	Ca FLUX <63 (mg/m^2/d)	NOTES
SS3-1	94.0	104.0					1.09						
	104.0	114.0					1.20					0.012	
	114.0	124.0			0.87	0.89	0.87					0.020	
	124.0	134.0			0.86	0.71	0.87			0.076	0.006	0.070	
	134.0	144.0			0.82	0.95	0.79			0.239	0.011	0.228	
	144.0	154.0			1.15	1.31	1.07			0.137	0.026	0.111	
	154.0	164.0			2.15	3.31	1.80			0.146	0.052	0.094	
	164.0	174.0			1.19	4.88	0.83			0.273	0.098	0.175	
	174.0	184.0			0.89	2.38	0.71			2.272	0.833	1.439	
	184.0	194.0			0.79	1.53	0.62			2.011	0.579	1.432	
	194.0	204.0					0.84			1.054	0.384	0.670	
	204.0	214.0					1.11						11
	214.0	224.0					0.87						11
SS3-2	244.0	260.0		0.58	2.39	4.45	1.11		0.066	1.256	0.893	0.363	11
	260.0	276.0			3.62	6.96	1.21			1.471	1.185	0.287	
	276.0	292.0		0.79	1.20	1.46	1.18		0.029	3.386	0.283	3.104	
	292.0	308.0		1.16	1.35	1.21	1.36		0.063	2.260	0.215	2.045	
	308.0	324.0			3.41	7.07	1.44			0.256	0.186	0.071	
	324.0	340.0			2.02	6.03	1.38			0.439	0.181	0.258	
	340.0	356.0		2.21	1.34	1.42	1.29		0.037	0.051	0.018	0.032	
	356.0	7.0			1.45	1.67	1.38			0.089	0.026	0.063	
	7.0	23.0			1.39	1.71	1.35			0.274	0.037	0.238	
	23.0	39.0			2.55	5.96	1.80			0.097	0.041	0.056	
	39.0	55.0			1.34	3.79	1.17			0.173	0.032	0.142	
	55.0	71.0			1.06	1.25	1.04			0.197	0.022	0.175	
	71.0	83.6			0.92	1.21	1.17			0.355	0.032	0.419	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : %Fe AND Fe FLUXES – SEQUENTIAL TRAP STATIONS SS3-1 AND SS3-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Fe	ALGAE >500 %Fe	<500 %Fe	63-500 %Fe	<63 %Fe	Fe FLUX TOTAL >500 (mg/m^2/d)	Fe FLUX ALGAE >500 (mg/m^2/d)	Fe FLUX <500 (mg/m^2/d)	Fe FLUX 63-500 (mg/m^2/d)	Fe FLUX <63 (mg/m^2/d)	NOTES
SS3-1	94.0	104.0					3.41					0.038	
	104.0	114.0					3.76					0.062	
	114.0	124.0			3.74	1.60	3.91			0.324	0.010	0.313	
	124.0	134.0			4.12	3.34	4.17			1.144	0.052	1.092	
	134.0	144.0			2.79	2.70	2.81			0.467	0.074	0.393	
	144.0	154.0			2.61	2.46	2.67			0.333	0.098	0.235	
	154.0	164.0			2.99	2.89	3.02			0.379	0.086	0.293	
	164.0	174.0			4.34	2.68	4.51			8.311	0.458	7.853	
	174.0	184.0			3.28	2.67	3.36			7.412	0.651	6.761	
	184.0	194.0			2.18	1.87	2.25			2.886	0.472	2.414	
	194.0	204.0					2.66						11
	204.0	214.0					1.38						11
	214.0	224.0					2.77						11
SS3-2	244.0	260.0		1.13	2.92	3.15	2.77		0.130	1.536	0.633	0.902	
	260.0	276.0			2.55	2.29	2.74			1.037	0.390	0.647	
	276.0	292.0		2.93	4.06	3.64	4.09		0.108	11.455	0.705	10.751	
	292.0	308.0		3.57	4.13	3.86	4.16		0.192	6.920	0.688	6.233	
	308.0	324.0			3.65	2.83	4.09			0.275	0.074	0.200	
	324.0	340.0			3.92	3.30	4.02			0.851	0.099	0.752	
	340.0	356.0			3.32	2.68	3.66			0.126	0.035	0.092	
	356.0	7.0			3.91	3.01	4.23			0.240	0.048	0.192	
	7.0	23.0			4.19	3.86	4.23			0.826	0.083	0.743	
	23.0	39.0			3.97	1.87	4.43			0.151	0.013	0.138	
	39.0	55.0			4.02	3.32	4.07			0.519	0.028	0.491	
	55.0	71.0			4.28	7.43	3.95			0.797	0.128	0.668	15
	71.0	83.6			3.56	8.35	4.23			1.368	0.225	1.512	15

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : % Si AND Si FLUXES – SEQUENTIAL TRAP STATIONS SS3–1 AND SS3–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Si	ALGAE >500 %Si	<500 %Si	63-500 %Si	<63 %Si	Si FLUX TOTAL >500 (mg/m^2/d)	Si FLUX ALGAE >500 (mg/m^2/d)	Si FLUX <500 (mg/m^2/d)	Si FLUX 63-500 (mg/m^2/d)	Si FLUX <63 (mg/m^2/d)	NOTES
SS3-1	94.0	104.0					14.14					0.16	
	104.0	114.0					9.17					0.15	8,9
	114.0	124.0			16.94	4.77	17.91			1.46	0.03	1.43	
	124.0	134.0			23.06	11.44	23.76			6.40	0.18	6.22	
	134.0	144.0			19.95	12.04	21.50			3.34	0.33	3.01	
	144.0	154.0			16.91	12.57	18.87			2.16	0.50	1.66	
	154.0	164.0			12.82	11.21	13.31			1.62	0.33	1.29	
	164.0	174.0			25.03	21.14	25.41			47.88	3.61	44.28	
	174.0	184.0			26.81	23.58	27.20			60.53	5.74	54.78	
	184.0	194.0			25.32	24.45	25.53			33.58	6.16	27.42	
	194.0	204.0					12.08						11
	204.0	214.0					6.41						11,9
	214.0	224.0					13.19						11
SS3-2	244.0	260.0		10.51	21.23	19.83	22.09		1.206	11.18	3.99	7.20	
	260.0	276.0			17.64	13.56	20.58			7.17	2.31	4.86	
	276.0	292.0		16.36	24.70	22.67	24.84		0.604	69.68	4.39	65.29	
	292.0	308.0		20.16	24.97	23.92	25.09		1.087	41.88	4.26	37.62	
	308.0	324.0			13.31	7.52	16.41			1.00	0.20	0.80	
	324.0	340.0			20.31	11.00	21.81			4.41	0.33	4.08	
	340.0	356.0		10.18	11.38	11.71	11.22		0.171	0.43	0.15	0.28	
	356.0	7.0			17.48	11.97	19.39			1.07	0.19	0.88	
	7.0	23.0		10.53	21.94	12.46	23.11		0.103	4.33	0.27	4.06	
	23.0	39.0			14.60	2.72	17.22			0.56	0.02	0.54	8
	39.0	55.0			22.99	9.14	23.96			2.97	0.08	2.89	
	55.0	71.0			21.89	11.14	22.99			4.08	0.19	3.89	
	71.0	83.6			22.48	10.00	23.42			8.64	0.27	8.37	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : % P AND P FLUXES – SEQUENTIAL TRAP STATIONS SS3–1 AND SS3–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %P	ALGAE >500 %P	<500 %P	63–500 %P	<63 %P	P FLUX TOTAL >500 (ug/m^2/d)	P FLUX ALGAE >500 (ug/m^2/d)	P FLUX <500 (ug/m^2/d)	P FLUX 63–500 (ug/m^2/d)	P FLUX <63 (ug/m^2/d)	NOTES
SS3–1	94.0	104.0					0.303					3.34	
	104.0	114.0					0.376					6.26	
	114.0	124.0			0.277	0.294	0.275			23.94	1.88	22.05	
	124.0	134.0			0.220	0.329	0.213			61.04	5.15	55.89	
	134.0	144.0			0.171	0.190	0.167			28.59	5.21	23.39	
	144.0	154.0			0.171	0.180	0.167			21.87	7.17	14.70	
	154.0	164.0			0.158	0.160	0.158			20.03	4.72	15.31	
	164.0	174.0			0.139	0.129	0.140			265.58	21.97	243.62	
	174.0	184.0			0.127	0.135	0.126			287.16	32.97	254.20	
	184.0	194.0			0.114	0.126	0.111			150.75	31.62	119.12	
	194.0	204.0					0.172						11
	204.0	214.0					0.079						11
	214.0	224.0					0.125						11
SS3–2	244.0	260.0		0.099	0.150	0.148	0.152		11.41	79.11	29.72	49.39	
	260.0	276.0			0.200	0.157	0.231			81.18	26.73	54.45	
	276.0	292.0		0.166	0.150	0.170	0.148		6.13	423.00	32.99	390.01	
	292.0	308.0		0.161	0.142	0.171	0.138		8.67	237.38	30.43	206.95	
	308.0	324.0			0.185	0.204	0.175			13.91	5.36	8.55	
	324.0	340.0			0.268	0.581	0.218			58.19	17.42	40.77	
	340.0	356.0		0.244	0.217	0.227	0.212		4.09	8.26	2.94	5.32	
	356.0	7.0			0.214	0.220	0.212			13.13	3.47	9.66	
	7.0	23.0		0.210	0.175	0.219	0.169		2.06	34.41	4.73	29.69	
	23.0	39.0			0.203	0.233	0.196			7.74	1.60	6.14	
	39.0	55.0			0.198	0.274	0.193			25.56	2.30	23.26	
	55.0	71.0			0.236	0.481	0.211			44.06	8.31	35.75	
	71.0	83.6			0.280	0.691	0.249			107.69	18.63	89.05	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : STATIONS SS3–1 AND SS3–2 – CHLOROPHYLL a AND PHAEO–PIGMENT FLUXES (63–500 AND <63 FRACTIONS)

STN	START JULIAN DAY	FINISH JULIAN DAY	63-500 PHAEO (ug/cup)	63-500 PHAEO FLUX (ug/m2/day)	63-500 CHLA (ug/cup)	63-500 CHLA FLUX (ug/m2/day)	<63 PHAEO (ug/cup)	<63 PHAEO FLUX (ug/m2/day)	<63 CHLA (ug/cup)	<63 CHLA FLUX (ug/m2/day)	NOTES
SS3-2	244.0	260.0	16.53	2.030	1.05	0.129	44.31	5.441	2.23	0.273	
	260.0	276.0	40.21	4.937	2.15	0.264	87.55	10.750	2.80	0.344	
	276.0	292.0	72.36	8.885	4.59	0.563	160.45	19.701	14.78	1.815	
	292.0	308.0	57.06	7.007	5.28	0.648	99.07	12.165	7.46	0.916	
	308.0	324.0	10.52	1.291	0.69	0.085	9.81	1.205	1.08	0.132	
	324.0	340.0	13.36	1.640	1.16	0.142	16.39	2.013	1.72	0.211	
	340.0	356.0	2.93	0.360	0.33	0.041	2.43	0.298	0.29	0.035	
	356.0	7.0	4.50	0.553	0.46	0.056	6.38	0.783	0.61	0.075	
	7.0	23.0	6.62	0.813	0.30	0.037	11.07	1.359	0.67	0.083	
	23.0	39.0	0.94	0.115	0.14	0.018	3.10	0.381	0.65	0.080	
	39.0	55.0	1.89	0.232	0.16	0.019	6.81	0.836	0.64	0.079	
	55.0	71.0	2.10	0.258	0.21	0.026	8.30	1.019	0.83	0.102	
	71.0	83.6	1.93	0.301	0.33	0.052	16.81	2.626	1.36	0.212	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : STATIONS SS3-1 AND SS3-2 - CHLOROPHYLL a AND PHAEO-PIGMENT FLUXES
(>500 ALGAE FRACTION AND <500 FRACTION)

STN	START JULIAN DAY	FINISH JULIAN DAY	ALGAE >500 PHAEO (ug/cup)	ALGAE >500 PHAEO FLUX (ug/m2/day)	ALGAE >500 CHLA (ug/cup)	ALGAE >500 CHLA FLUX (ug/m2/day)	<500 PHAEO (ug/cup)	<500 PHAEO FLUX (ug/m2/day)	<500 CHLA (ug/cup)	<500 CHLA FLUX (ug/m2/day)	NOTES
SS3-2	244.0	260.0	3.08	0.378	0.16	0.020	60.841	7.471	3.276	0.402	
	260.0	276.0					127.756	15.687	4.946	0.607	
	276.0	292.0	2.38	0.292	0.25	0.031	232.807	28.586	19.370	2.378	
	292.0	308.0	5.48	0.672	0.56	0.068	156.133	19.172	12.743	1.565	
	308.0	324.0					20.326	2.496	1.764	0.217	
	324.0	340.0					29.748	3.653	2.874	0.353	
	340.0	356.0	4.19	0.515	0.17	0.021	5.360	0.658	0.620	0.076	
	356.0	7.0	0.41	0.050	0.06	0.008	10.879	1.336	1.067	0.131	
	7.0	23.0	0.17	0.020	0.02	0.003	17.688	2.172	0.976	0.120	
	23.0	39.0	0.08	0.010	0.04	0.004	4.037	0.496	0.798	0.098	
	39.0	55.0	0.05	0.006	0.03	0.003	8.699	1.068	0.798	0.098	
	55.0	71.0	0.17	0.021	0.03	0.003	10.403	1.277	1.036	0.127	
	71.0	83.6	0.30	0.046	0.08	0.012	18.741	2.927	1.692	0.264	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS3 CONT. : STATIONS SS3-1 AND SS3-2 – CARBON AND NITROGEN DATA FOR 63-500 AND <63 FRACTIONS

STATION	START JULIAN DAY	FINISH JULIAN DAY	63-500 C/N	63-500 %N	63-500 %C	N FLUX 63-500 (mg/m^2/d)	C FLUX 63-500 (mg/m^2/d)	<63 C/N	<63 %N	<63 %C	N FLUX <63 (mg/m^2/d)	C FLUX <63 (mg/m^2/d)	NOTES
SS3-1	94.0	104.0											
	104.0	114.0						8.47	0.85	7.23	0.0141	0.1202	
	114.0	124.0						7.75	1.14	8.86	0.0913	0.7094	
	124.0	134.0	8.28	1.18	9.77	0.0185	0.1529	7.20	0.79	5.66	0.2069	1.4822	
	134.0	144.0	8.49	1.24	10.55	0.0339	0.2888	9.73	0.86	8.38	0.1204	1.1731	
	144.0	154.0	11.28	1.22	13.73	0.0486	0.5469	11.79	1.05	12.66	0.0923	1.1126	
	154.0	164.0	10.04	0.74	7.39	0.0219	0.2184	9.51	0.74	7.00	0.0718	0.6792	
	164.0	174.0	8.83	0.74	6.55	0.1263	1.1179	10.62	0.42	4.41	0.7319	7.6850	
	174.0	184.0	8.96	0.88	7.85	0.2144	1.9123	9.23	0.54	4.97	1.0877	10.0107	
	184.0	194.0	9.87	1.14	11.24	0.2870	2.8301	11.37	0.98	11.18	1.0527	12.0090	
	194.0	204.0											11
	204.0	214.0											11
	214.0	224.0											11
SS3-2	244.0	260.0	6.34	1.63	10.33	0.3276	2.0759	14.33	1.50	9.59	0.4870	3.1227	
	260.0	276.0	6.28	2.17	13.59	0.3686	2.3137	13.33	1.71	7.80	0.4037	1.8402	
	276.0	292.0	6.86	1.10	7.55	0.2130	1.4620	3.36	0.45	7.47	1.1826	19.6224	
	292.0	308.0	7.61	0.70	5.33	0.1248	0.9503	2.88	0.38	7.58	0.5697	11.3623	
	308.0	324.0	6.10	1.44	8.78	0.0378	0.2305	6.03	1.00	6.03	0.0490	0.2954	
	324.0	340.0	8.79	1.07	9.40	0.0321	0.2820	4.45	0.83	5.36	0.1553	1.0033	
	340.0	356.0	15.95	1.51	24.00	0.0195	0.3103	10.78	1.57	6.87	0.0394	0.1722	
	356.0	7.0	7.49	1.52	11.38	0.0240	0.1796	8.48	1.64	5.17	0.0747	0.2354	
	7.0	23.0	9.82	1.17	11.49	0.0252	0.2478	4.22	0.70	6.03	0.1229	1.0584	
	23.0	39.0	9.80	1.57	15.39	0.0108	0.1060	7.54	1.40	5.39	0.0438	0.1685	
	39.0	55.0	8.01	1.73	13.86	0.0145	0.1166	5.39	1.01	5.34	0.1218	0.6437	
	55.0	71.0	5.97	2.37	14.15	0.0409	0.2444	8.14	1.45	5.61	0.2452	0.9493	
	71.0	83.6	6.82	1.52	10.37	0.0410	0.2795	7.31	1.07	6.83	0.3826	2.4430	

See first page of APPENDIX A for explanation of calculations, symbols and notes

TABLE SS3 CONT. : STATIONS SS3–1 AND SS3–2 – CARBON AND NITROGEN DATA FOR <500 FRACTION
(SUM OF 63–500 AND <63 FRACTIONS)

STATION	START JULIAN DAY	FINISH JULIAN DAY	<500 C/N	<500 %N	<500 %C	N FLUX <500 (mg/m^2/d)	C FLUX <500 (mg/m^2/d)	NOTES
SS3-1	94.0	104.0						12
	104.0	114.0						12
	114.0	124.0						12
	124.0	134.0	7.256	0.812	5.892	0.225	1.635	
	134.0	144.0	9.472	0.922	8.735	0.154	1.462	
	144.0	154.0	11.780	1.103	12.994	0.141	1.659	
	154.0	164.0	9.582	0.740	7.091	0.094	0.898	
	164.0	174.0	10.257	0.449	4.601	0.858	8.803	
	174.0	184.0	9.157	0.577	5.281	1.302	11.923	
	184.0	194.0	11.076	1.010	11.191	1.340	14.839	
	194.0	204.0						11
	204.0	214.0						11
	214.0	224.0						11
SS3-2	244.0	260.0	6.382	1.547	9.869	0.815	5.199	
	260.0	276.0	5.379	1.901	10.223	0.772	4.154	
	276.0	292.0	15.108	0.495	7.472	1.396	21.084	
	292.0	308.0	17.729	0.414	7.340	0.694	12.313	
	308.0	324.0	6.059	1.154	6.989	0.087	0.526	
	324.0	340.0	6.858	0.863	5.919	0.187	1.285	
	340.0	356.0	8.201	1.548	12.695	0.059	0.483	
	356.0	7.0	4.207	1.609	6.769	0.099	0.415	
	7.0	23.0	8.818	0.751	6.626	0.148	1.306	
	23.0	39.0	5.027	1.431	7.192	0.055	0.275	
	39.0	55.0	5.575	1.057	5.892	0.136	0.760	
	55.0	71.0	4.172	1.535	6.405	0.286	1.194	
	71.0	83.6	6.427	1.102	7.080	0.424	2.723	

See first page of APPENDIX A for explanation of calculations, symbols and notes

TABLE SS4 : SEQUENTIAL SEDIMENT TRAP STATION SS4 – COLLECTION PERIODS

STATION	START JULIAN DAY	FINISH JULIAN DAY	COLLECTION PERIOD (days)	SEQ #	CUP #	START HOUR PST	START DATE (MM/DD/YY)	FINISH HOUR PST	FINISH DATE (MM/DD/YY)	COMMENTS
SS4-1	124.0	134.0	10.0	1	1	00:00	05/04/87	00:00	05/14/87	
	134.0	144.0	10.0	2	2	00:00	05/14/87	00:00	05/24/87	
	144.0	154.0	10.0	3	3	00:00	05/24/87	00:00	06/03/87	
	154.0	164.0	10.0	4	4	00:00	06/03/87	00:00	06/13/87	
	164.0	174.0	10.0	5	5	00:00	06/13/87	00:00	06/23/87	
	174.0	184.0	10.0	6	6	00:00	06/23/87	00:00	07/03/87	
	184.0	194.0	10.0	7	7	00:00	07/03/87	00:00	07/13/87	
	194.0	204.0	10.0	8	8	00:00	07/13/87	00:00	07/23/87	
	204.0	214.0	10.0	9	9	00:00	07/23/87	00:00	08/02/87	
	214.0	224.0	10.0	10	10	00:00	08/02/87	00:00	08/12/87	
SS4-2	244.0	260.0	16.0	11	1	00:00	09/01/87	00:00	09/17/87	
	260.0	276.0	16.0	12	2	00:00	09/17/87	00:00	10/03/87	
	276.0	292.0	16.0	13	3	00:00	10/03/87	00:00	10/19/87	
	292.0	308.0	16.0	14	4	00:00	10/19/87	00:00	11/04/87	
	308.0	324.0	16.0	15	5	00:00	11/04/87	00:00	11/20/87	
	324.0	340.0	16.0	16	6	00:00	11/20/87	00:00	12/06/87	
	340.0	356.0	16.0	17	7	00:00	12/06/87	00:00	12/22/87	
	356.0	7.0	16.0	18	8	00:00	12/22/87	00:00	01/07/88	
	7.0	23.0	16.0	19	9	00:00	01/07/88	00:00	01/23/88	
	23.0	39.0	16.0	20	10	00:00	01/23/88	00:00	02/08/88	

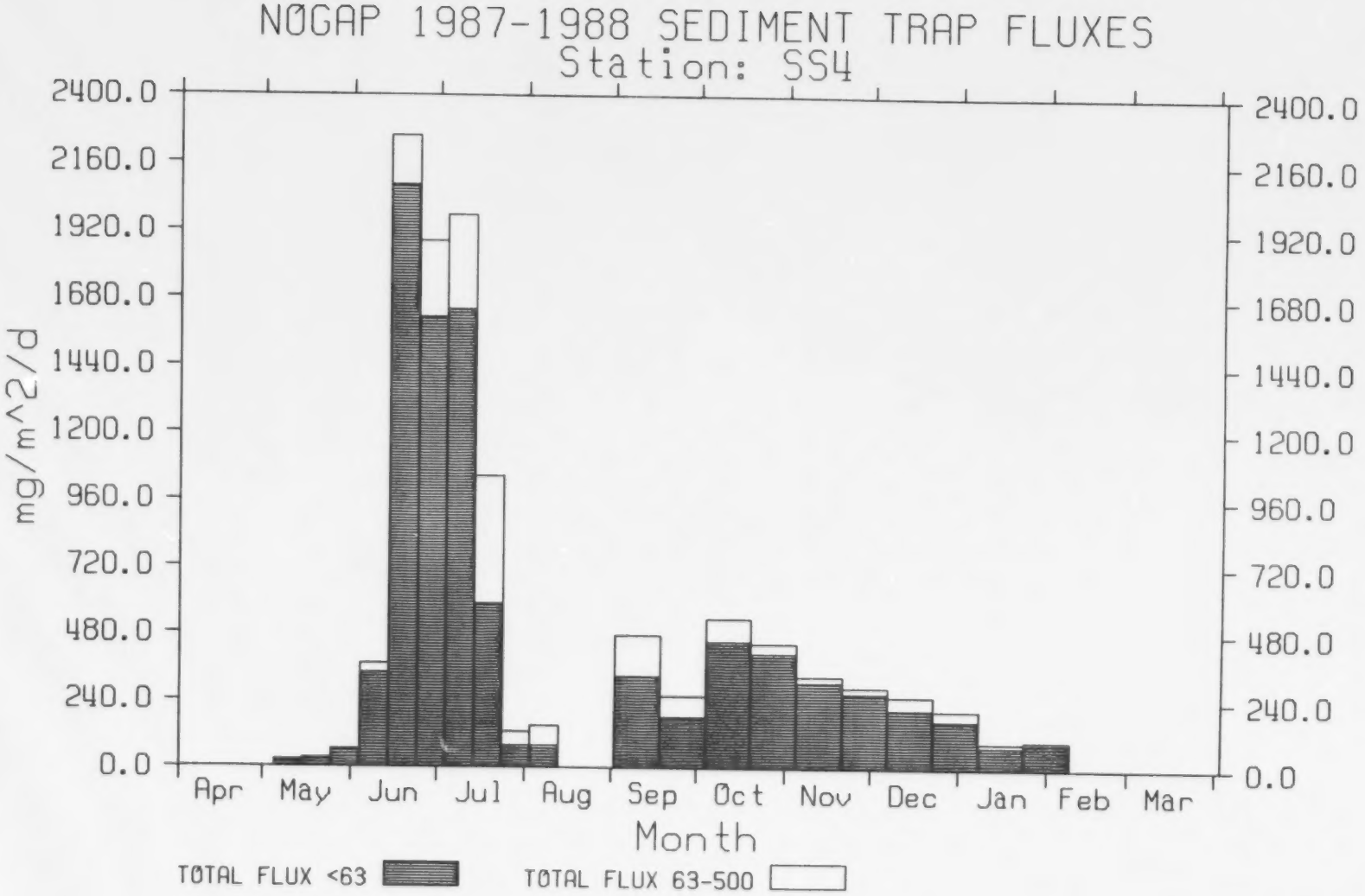

NOGAP 1987-1988 SEDIMENT TRAP FLUXES
Station: SS4
mg/m^2/d
2400.0
2160.0
1920.0
1680.0
1440.0
1200.0
960.0
720.0
480.0
240.0
0.0
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Month
TOTAL FLUX <63
TOTAL FLUX 63-500

TABLE SS4 CONT. : TOTAL FLUXES – SEQUENTIAL TRAP STATIONS SS4–1 AND SS4–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL TRAPPED >500 (mg/m^2/d)	ZOOPLKTN TRAPPED >500 (mg/m^2/d)	ALGAE FLUX >500 (mg/m^2/d)	TOTAL FLUX <500 (mg/m^2/d)	TOTAL FLUX 63-500 (mg/m^2/d)	TOTAL FLUX <63 (mg/m^2/d)	NOTES
SS4-1	124.0	134.0	67.62		8.91	26.84	3.85	22.99	
	134.0	144.0	77.25		10.28	34.52	3.99	30.53	
	144.0	154.0	24.94		5.66	67.52	5.25	62.28	
	154.0	164.0	68.97		9.81	371.65	32.12	339.53	
	164.0	174.0	46.34		9.87	2255.18	172.70	2082.48	
	174.0	184.0	86.00		44.69	1883.01	269.02	1613.99	
	184.0	194.0	245.81		226.38	1975.01	335.61	1639.39	
	194.0	204.0	385.72		362.88	1044.42	457.40	587.02	
	204.0	214.0	168.37		130.69	128.06	47.48	80.58	
	214.0	224.0	174.00		159.16	152.49	71.46	81.03	
SS4-2	244.0	260.0	84.86	63.75	21.11	475.67	148.14	327.53	
	260.0	276.0	102.89	56.11	46.78	257.53	73.37	184.17	
	276.0	292.0	120.90	82.05	38.85	534.17	80.81	453.36	
	292.0	308.0	44.57	24.49	20.08	447.22	37.27	409.96	7
	308.0	324.0	102.15	88.07	14.08	330.34	24.11	306.24	
	324.0	340.0	88.46	71.78	16.68	288.13	20.42	267.71	
	340.0	356.0	44.71	14.51	30.20	257.30	46.73	210.57	7
	356.0	7.0	44.53	33.57	10.96	207.27	34.28	173.00	
	7.0	23.0	40.00	38.05	1.95	92.71	13.16	79.55	7
	23.0	39.0	51.50	41.93	9.57	102.66	13.37	89.29	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : %Al AND Al FLUXES – SEQUENTIAL TRAP STATIONS SS4-1 AND SS4-2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Al	ALGAE >500 %Al	<500 %Al	63-500 %Al	<63 %Al	Al FLUX TOTAL >500 (mg/m^2/d)	Al FLUX ALGAE >500 (mg/m^2/d)	Al FLUX <500 (mg/m^2/d)	Al FLUX 63-500 (mg/m^2/d)	Al FLUX <63 (mg/m^2/d)	NOTES
SS4-1	124.0	134.0					7.26					1.669	10
	134.0	144.0			4.96	5.91	4.84			1.713	0.236	1.477	
	144.0	154.0			7.54	5.80	7.69			5.093	0.304	4.788	
	154.0	164.0			5.83	5.30	5.88			21.675	1.703	19.972	
	164.0	174.0			10.18	8.99	10.28			229.522	15.521	214.001	
	174.0	184.0			9.46	8.58	9.60			178.093	23.084	155.009	
	184.0	194.0			9.02	7.65	9.30			178.062	25.675	152.387	
	194.0	204.0			8.89	8.94	8.85			92.868	40.909	51.959	
	204.0	214.0			7.18	7.85	6.78			9.194	3.729	5.464	
	214.0	224.0			5.80	6.66	5.05			8.849	4.760	4.089	
SS4-2	244.0	260.0			7.12	5.60	7.80			33.856	8.301	25.555	
	260.0	276.0			7.04	5.70	7.57			18.118	4.180	13.938	
	276.0	292.0			9.39	8.08	9.63			50.176	6.532	43.644	
	292.0	308.0			9.44	8.07	9.57			42.229	3.008	39.221	
	308.0	324.0					9.52					29.155	10
	324.0	340.0			9.43	7.44	9.58			27.160	1.520	25.640	
	340.0	356.0			9.24	9.19	9.26			23.785	4.297	19.489	
	356.0	7.0			8.78	7.45	9.05			18.209	2.553	15.655	
	7.0	23.0			8.80	7.20	9.07			8.159	0.947	7.212	
	23.0	39.0			7.68	4.84	8.11			7.886	0.647	7.239	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : %Ca AND Ca FLUXES – SEQUENTIAL TRAP STATIONS SS4–1 AND SS4–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Ca	ALGAE >500 %Ca	<500 %Ca	63–500 %Ca	<63 %Ca	Ca FLUX TOTAL >500 (mg/m^2/d)	Ca FLUX ALGAE >500 (mg/m^2/d)	Ca FLUX <500 (mg/m^2/d)	Ca FLUX 63–500 (mg/m^2/d)	Ca FLUX <63 (mg/m^2/d)	NOTES
SS4-1	124.0	134.0					1.22					0.280	10
	134.0	144.0			0.88	0.69	0.90			0.302	0.028	0.275	
	144.0	154.0			1.26	0.83	1.30			0.851	0.044	0.808	
	154.0	164.0			0.81	0.81	0.81			3.018	0.259	2.759	
	164.0	174.0			1.07	0.88	1.09			24.187	1.528	22.659	
	174.0	184.0			1.05	0.95	1.07			19.821	2.560	17.261	
	184.0	194.0			1.53	1.34	1.56			30.122	4.509	25.614	
	194.0	204.0			1.17	1.18	1.16			12.196	5.415	6.781	
	204.0	214.0			1.13	1.16	1.11			1.445	0.551	0.894	
	214.0	224.0			0.95	1.14	0.78			1.441	0.813	0.628	
SS4-2	244.0	260.0			2.41	4.32	1.54			11.453	6.401	5.052	
	260.0	276.0			1.87	3.18	1.34			4.809	2.336	2.473	
	276.0	292.0			1.91	1.91	1.91			10.213	1.542	8.671	
	292.0	308.0			2.25	3.38	2.15			10.075	1.258	8.817	
	308.0	324.0			1.86	2.14	1.84			6.156	0.517	5.639	
	324.0	340.0			1.57	2.18	1.53			4.529	0.445	4.085	
	340.0	356.0		1.22	1.38	1.12	1.43		0.369	3.539	0.523	3.017	
	356.0	7.0			1.58	1.05	1.69			3.280	0.359	2.921	
	7.0	23.0			1.81	0.86	1.97			1.682	0.113	1.570	
	23.0	39.0			1.64	2.08	1.57			1.684	0.278	1.406	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : %Fe AND Fe FLUXES – SEQUENTIAL TRAP STATIONS SS4–1 AND SS4–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Fe	ALGAE >500 %Fe	<500 %Fe	63-500 %Fe	<63 %Fe	Fe FLUX TOTAL >500 (mg/m^2/d)	Fe FLUX ALGAE >500 (mg/m^2/d)	Fe FLUX <500 (mg/m^2/d)	Fe FLUX 63-500 (mg/m^2/d)	Fe FLUX <63 (mg/m^2/d)	NOTES
SS4-1	124.0	134.0					4.35					1.001	10
	134.0	144.0			3.84	3.04	3.94			1.324	0.121	1.203	
	144.0	154.0			4.00	2.95	4.09			2.700	0.155	2.545	
	154.0	164.0			2.80	2.53	2.82			10.404	0.814	9.590	
	164.0	174.0			4.89	4.13	4.96			110.390	7.135	103.256	
	174.0	184.0			4.94	4.55	5.01			93.015	12.230	80.784	
	184.0	194.0			4.48	4.41	4.50			88.514	14.797	73.717	
	194.0	204.0			4.25	4.33	4.18			44.352	19.819	24.533	
	204.0	214.0			3.47	3.84	3.26			4.448	1.823	2.624	
	214.0	224.0			3.02	3.43	2.67			4.609	2.448	2.161	
SS4-2	244.0	260.0			3.36	2.72	3.65			16.000	4.032	11.968	
	260.0	276.0			3.39	2.73	3.65			8.726	2.003	6.723	
	276.0	292.0			4.14	3.74	4.21			22.107	3.020	19.087	
	292.0	308.0			4.19	3.88	4.22			18.756	1.447	17.309	
	308.0	324.0					4.21					12.901	10
	324.0	340.0			4.30	3.83	4.34			12.403	0.782	11.620	
	340.0	356.0			4.30	4.37	4.28			11.052	2.044	9.008	
	356.0	7.0			4.34	3.54	4.50			9.004	1.212	7.792	
	7.0	23.0			4.39	3.34	4.56			4.069	0.439	3.630	
	23.0	39.0			3.83	3.20	3.92			3.927	0.428	3.499	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : % Si AND Si FLUXES – SEQUENTIAL TRAP STATIONS SS4–1 AND SS4–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %Si	ALGAE >500 %Si	<500 %Si	63-500 %Si	<63 %Si	Si FLUX TOTAL >500 (mg/m^2/d)	Si FLUX ALGAE >500 (mg/m^2/d)	Si FLUX <500 (mg/m^2/d)	Si FLUX 63-500 (mg/m^2/d)	Si FLUX <63 (mg/m^2/d)	NOTES
SS4-1	124.0	134.0					14.44					3.32	10
	134.0	144.0			13.72	12.37	13.90			4.74	0.49	4.24	
	144.0	154.0			12.13	14.97	11.89			8.19	0.79	7.40	
	154.0	164.0			23.87	8.34	25.33			88.70	2.68	86.02	8
	164.0	174.0			23.76	23.46	23.79			535.93	40.52	495.41	
	174.0	184.0			23.89	24.20	23.83			449.78	65.11	384.67	
	184.0	194.0			24.78	24.23	24.90			489.47	81.31	408.16	
	194.0	204.0			24.95	24.95	24.95			260.56	114.10	146.46	
	204.0	214.0			20.86	20.15	21.27			26.71	9.57	17.14	
	214.0	224.0			18.50	19.46	17.64			28.20	13.91	14.29	8
SS4-2	244.0	260.0			24.06	19.43	26.15			114.44	28.78	85.66	
	260.0	276.0			20.80	12.93	23.93			53.56	9.48	44.07	
	276.0	292.0			23.53	17.74	24.56			125.68	14.34	111.34	
	292.0	308.0			24.11	16.04	24.84			107.83	5.98	101.85	
	308.0	324.0			24.21	12.14	25.16			79.96	2.93	77.04	
	324.0	340.0			23.48	10.24	24.49			67.66	2.09	65.57	
	340.0	356.0		20.79	22.63	14.73	24.38		6.279	58.22	6.88	51.33	
	356.0	7.0			21.62	11.77	23.57			44.80	4.03	40.77	
	7.0	23.0			22.03	16.75	22.90			20.42	2.20	18.22	
	23.0	39.0			18.73	7.23	20.46			19.23	0.97	18.27	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : % P AND P FLUXES – SEQUENTIAL TRAP STATIONS SS4–1 AND SS4–2

STN	START JULIAN DAY	FINISH JULIAN DAY	TOTAL >500 %P	ALGAE >500 %P	<500 %P	63-500 %P	<63 %P	P FLUX TOTAL >500 (ug/m^2/d)	P FLUX ALGAE >500 (ug/m^2/d)	P FLUX <500 (ug/m^2/d)	P FLUX 63-500 (ug/m^2/d)	P FLUX <63 (ug/m^2/d)	NOTES
SS4-1	124.0	134.0					0.268					61.52	10
	134.0	144.0			0.267	0.276	0.266			92.19	11.01	81.18	
	144.0	154.0			0.174	0.182	0.174			117.82	9.55	108.26	
	154.0	164.0			0.127	0.153	0.125			473.26	48.99	424.27	
	164.0	174.0			0.133	0.141	0.132			2990.37	243.68	2746.69	
	174.0	184.0			0.148	0.167	0.144			2778.38	449.35	2329.03	
	184.0	194.0			0.150	0.162	0.147			2953.89	543.03	2410.86	
	194.0	204.0			0.140	0.159	0.124			1457.76	727.18	730.58	
	204.0	214.0			0.134	0.157	0.121			171.63	74.35	97.28	
	214.0	224.0			0.131	0.145	0.118			199.39	103.91	95.48	
SS4-2	244.0	260.0			0.143	0.144	0.143			682.28	213.55	468.74	
	260.0	276.0			0.173	0.184	0.169			445.30	134.72	310.58	
	276.0	292.0			0.150	0.174	0.145			799.58	140.58	659.01	
	292.0	308.0			0.124	0.152	0.121			553.89	56.78	497.12	
	308.0	324.0			0.139	0.169	0.136			458.34	40.64	417.70	
	324.0	340.0			0.168	0.238	0.163			483.92	48.66	435.26	
	340.0	356.0		0.138	0.130	0.153	0.125		41.78	334.33	71.72	262.61	
	356.0	7.0			0.158	0.181	0.154			328.29	61.89	266.40	
	7.0	23.0			0.145	0.139	0.146			134.23	18.27	115.96	
	23.0	39.0			0.162	0.171	0.160			165.84	22.88	142.96	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : STATIONS SS4–1 AND SS4–2 – CHLOROPHYLL a AND PHAEO–PIGMENT FLUXES (63–500 AND <63 FRACTIONS)

STN	START JULIAN DAY	FINISH JULIAN DAY	63-500 PHAEO (ug/cup)	63-500 PHAEO FLUX (ug/m2/day)	63-500 CHLA (ug/cup)	63-500 CHLA FLUX (ug/m2/day)	<63 PHAEO (ug/cup)	<63 PHAEO FLUX (ug/m2/day)	<63 CHLA (ug/cup)	<63 CHLA FLUX (ug/m2/day)	NOTES
SS4-2	244.0	260.0	53.51	104.505	4.25	8.301	86.33	168.616	4.63	9.036	
	260.0	276.0	39.58	77.299	0.93	1.811	35.73	69.779	2.36	4.618	
	276.0	292.0	19.37	37.834	1.44	2.803	25.31	49.427	2.27	4.441	
	292.0	308.0	5.55	10.838	0.32	0.616	13.97	27.289	0.98	1.918	
	308.0	324.0	4.52	8.820	0.47	0.916	11.60	22.660	1.13	2.201	
	324.0	340.0	4.12	8.051	0.35	0.693	9.57	18.691	0.80	1.559	
	340.0	356.0	7.48	14.617	0.67	1.316	11.14	21.749	0.70	1.374	
	356.0	7.0	3.08	6.010	0.25	0.484	5.69	11.122	0.53	1.033	
	7.0	23.0	0.58	1.132	0.08	0.152	1.68	3.285	0.24	0.461	
	23.0	39.0	0.69	1.345	0.08	0.152	2.46	4.803	0.30	0.576	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : STATIONS SS4-1 AND SS4-2 - CHLOROPHYLL a AND PHAEO-PIGMENT FLUXES
(>500 ALGAE FRACTION AND <500 FRACTION)

STN	START JULIAN DAY	FINISH JULIAN DAY	ALGAE >500 PHAEO (ug/cup)	ALGAE >500 PHAEO FLUX (ug/m2/day)	ALGAE >500 CHLA (ug/cup)	ALGAE >500 CHLA FLUX (ug/m2/day)	<500 PHAEO (ug/cup)	<500 PHAEO FLUX (ug/m2/day)	<500 CHLA (ug/cup)	<500 CHLA FLUX (ug/m2/day)	NOTES
SS4-2	244.0	260.0					139.837	273.120	8.876	17.337	
	260.0	276.0					75.304	147.078	3.292	6.429	
	276.0	292.0					44.678	87.261	3.709	7.244	
	292.0	308.0					19.521	38.127	1.297	2.533	
	308.0	324.0					16.118	31.481	1.596	3.117	
	324.0	340.0					13.692	26.742	1.153	2.251	
	340.0	356.0	1.924	3.757	0.165	0.323	18.620	36.367	1.377	2.690	
	356.0	7.0					8.772	17.132	0.777	1.517	
	7.0	23.0	0.46	0.894	0.05	0.091	2.261	4.417	0.314	0.613	
	23.0	39.0					3.148	6.148	0.373	0.728	

See first page of APPENDIX A for explanation of calculations, symbols and notes.

TABLE SS4 CONT. : STATIONS SS4–1 AND SS4–2 – CARBON AND NITROGEN DATA FOR 63–500 AND <63 FRACTIONS

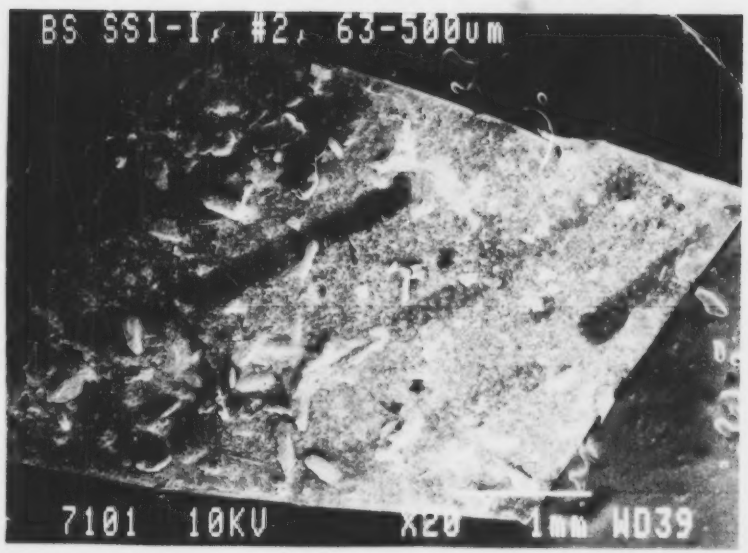
STATION	START JULIAN DAY	FINISH JULIAN DAY	63-500 C/N	63-500 %N	63-500 %C	N FLUX 63-500 (mg/m^2/d)	C FLUX 63-500 (mg/m^2/d)	<63 C/N	<63 %N	<63 %C	N FLUX <63 (mg/m^2/d)	C FLUX <63 (mg/m^2/d)	NOTES
SS4-1	124.0	134.0	6.34	3.18	20.15	0.1225	0.7764	6.42	0.83	5.31	0.1908	1.2208	
	134.0	144.0						6.78	0.94	6.35	0.2870	1.9385	10
	144.0	154.0						8.09	0.51	4.09	0.3176	2.5470	10
	154.0	164.0	9.58	1.00	9.58	0.3212	3.0772	12.13	0.75	9.05	2.5465	30.7276	
	164.0	174.0	8.76	0.46	4.00	0.7944	6.9080	8.37	0.27	2.26	5.6227	47.0640	
	174.0	184.0	8.27	0.67	5.55	1.8024	14.9306	8.38	0.36	2.99	5.8103	48.2582	
	184.0	194.0	7.48	0.53	3.97	1.7788	13.3239	7.59	0.33	2.48	5.4100	40.6569	
	194.0	204.0	8.73	0.53	4.63	2.4242	21.1776	9.83	0.43	4.18	2.5242	24.5375	
	204.0	214.0	11.56	0.57	6.54	0.2706	3.1052	9.57	0.29	2.80	0.2337	2.2563	
	214.0	224.0	9.02	0.73	6.63	0.5217	4.7379	7.51	0.66	4.97	0.5348	4.0272	
SS4-2	244.0	260.0	6.72	1.15	7.73	1.7036	11.4515	4.26	0.65	6.55	2.1290	21.4659	
	260.0	276.0	6.29	1.32	8.30	0.9684	6.0895	5.45	0.93	5.86	1.7128	10.7926	
	276.0	292.0	7.92	0.79	6.26	0.6384	5.0584	3.36	0.54	6.22	2.4482	28.2092	
	292.0	308.0	6.75	0.71	4.79	0.2646	1.7850	2.16	0.29	7.45	1.1889	30.5350	
	308.0	324.0	7.17	0.92	6.60	0.2218	1.5909	2.42	0.37	6.54	1.1331	20.0294	
	324.0	340.0	7.82	0.94	7.31	0.1909	1.4927	3.22	0.50	6.44	1.3385	17.2402	
	340.0	356.0	13.64	0.44	6.00	0.2056	2.8037	2.81	0.24	11.71	0.5054	24.6542	
	356.0	7.0	11.46	0.54	6.19	0.1851	2.1216	2.65	0.42	6.31	0.7266	10.9154	
	7.0	23.0	7.21	0.57	4.11	0.0750	0.5408	3.19	0.34	9.51	0.2665	7.5630	
	23.0	39.0	8.43	0.35	2.95	0.0468	0.3944	2.68	0.44	6.09	0.3929	5.4387	

See first page of APPENDIX A for explanation of calculations, symbols and notes

TABLE SS4 CONT. : STATIONS SS4-1 AND SS4-2 - CARBON AND NITROGEN DATA FOR <500 FRACTION (SUM OF 63-500 AND <63 FRACTIONS)

STATION	START JULIAN DAY	FINISH JULIAN DAY	<500 C/N	<500 %N	<500 %C	N FLUX <500 (mg/m^2/d)	C FLUX <500 (mg/m^2/d)	NOTES
SS4-1	124.0	134.0	6.374	1.167	7.440	0.313	1.997	
	134.0	144.0						10
	144.0	154.0						10
	154.0	164.0	11.788	0.772	9.096	2.868	33.805	
	164.0	174.0	8.411	0.285	2.393	6.417	53.972	
	174.0	184.0	8.300	0.404	3.356	7.613	63.189	
	184.0	194.0	7.509	0.364	2.733	7.189	53.981	
	194.0	204.0	9.238	0.474	4.377	4.948	45.715	
	204.0	214.0	10.631	0.394	4.187	0.504	5.362	
	214.0	224.0	8.297	0.693	5.748	1.056	8.765	
SS4-2	244.0	260.0	8.589	0.806	6.920	3.833	32.917	
	260.0	276.0	6.296	1.041	6.555	2.681	16.882	
	276.0	292.0	10.778	0.578	6.228	3.087	33.268	
	292.0	308.0	22.236	0.325	7.227	1.453	32.320	
	308.0	324.0	15.958	0.410	6.545	1.355	21.620	
	324.0	340.0	12.248	0.531	6.502	1.529	18.733	
	340.0	356.0	38.620	0.276	10.672	0.711	27.458	
	356.0	7.0	14.300	0.440	6.290	0.912	13.037	
	7.0	23.0	23.731	0.368	8.741	0.341	8.104	
	23.0	39.0	13.267	0.428	5.682	0.440	5.833	

See first page of APPENDIX A for explanation of calculations, symbols and notes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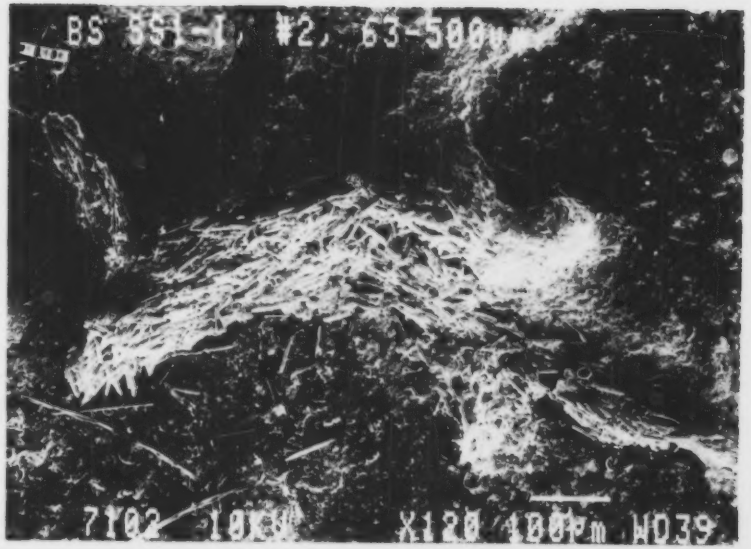
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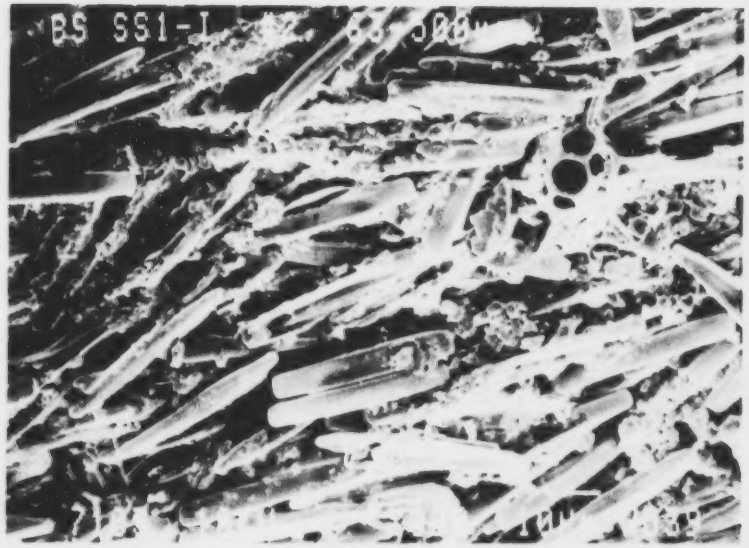
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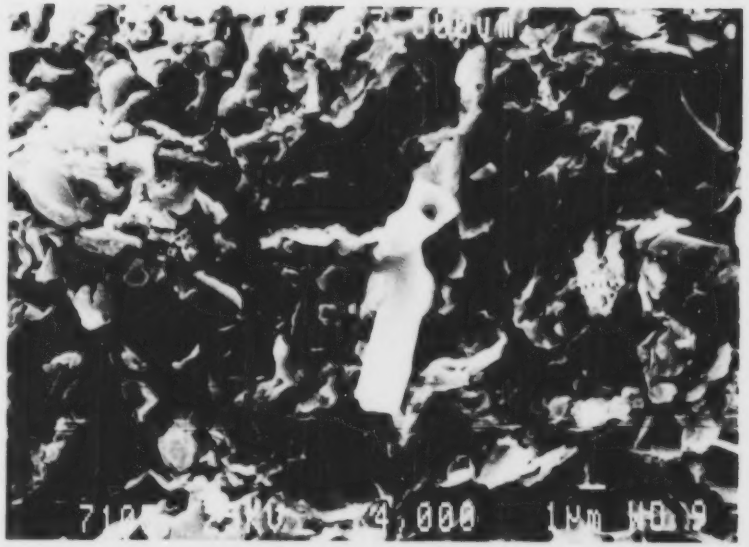
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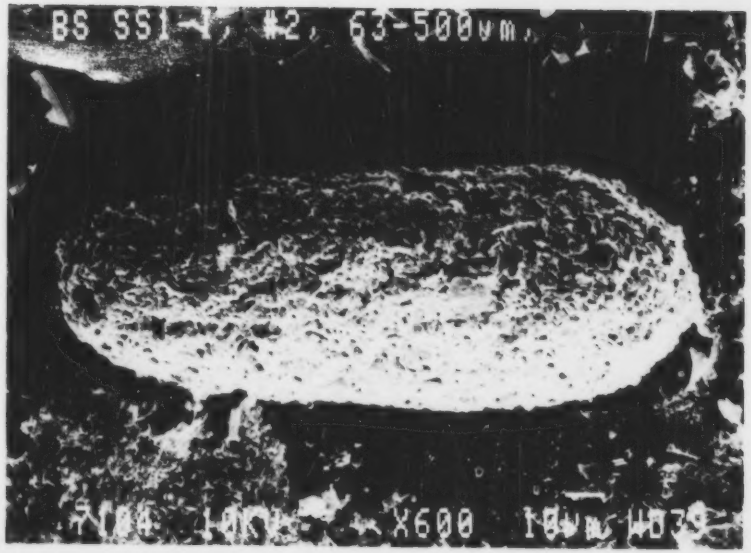
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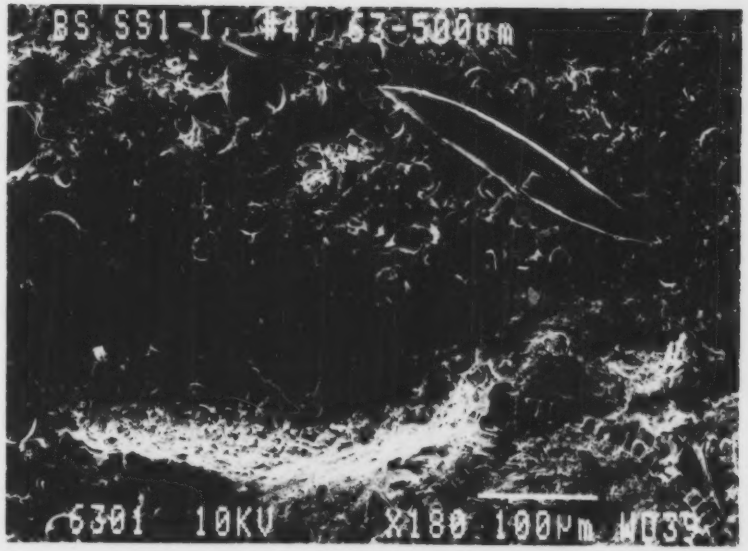
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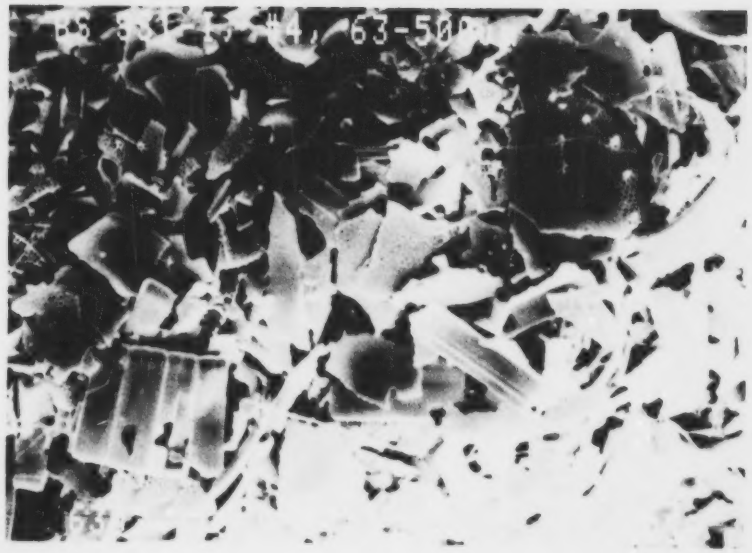

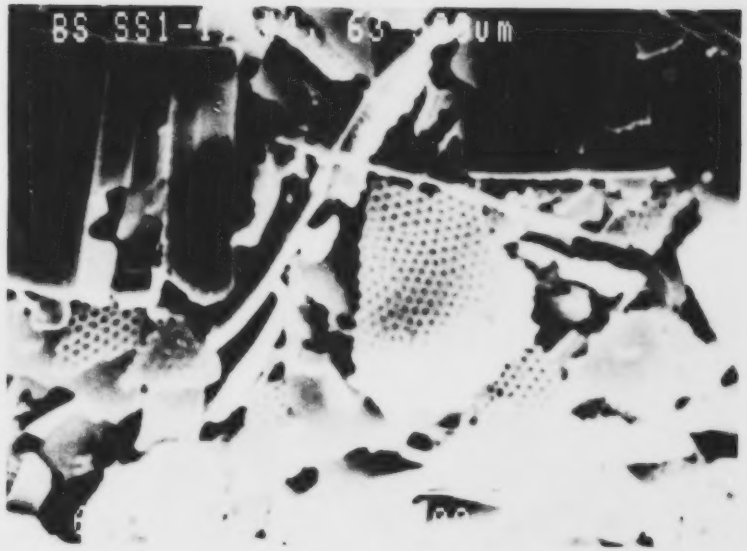

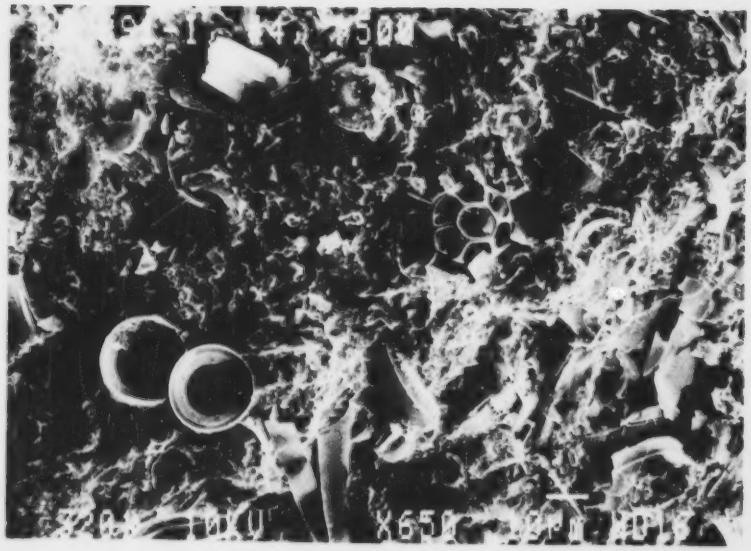

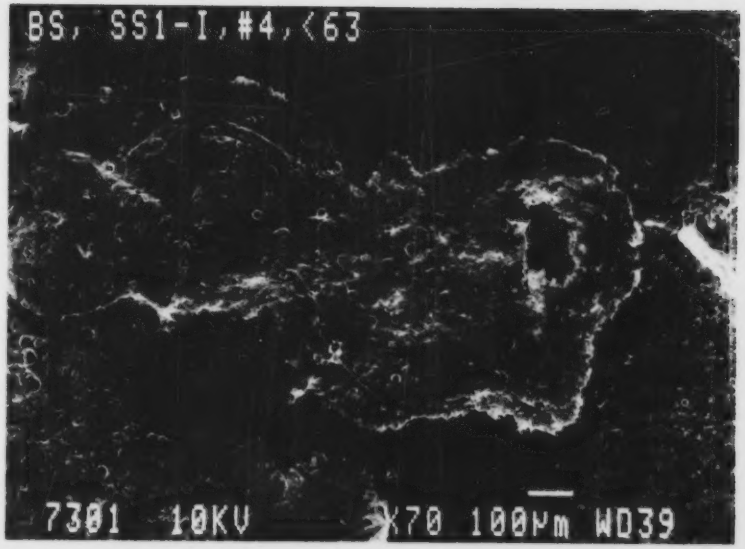
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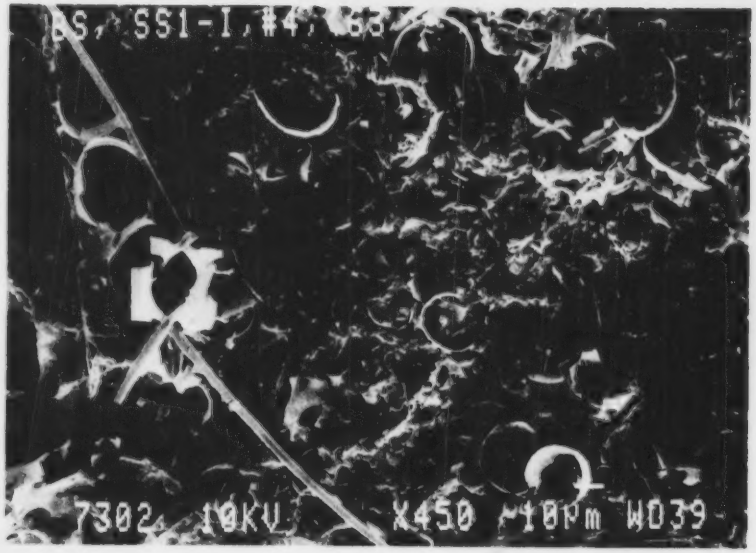
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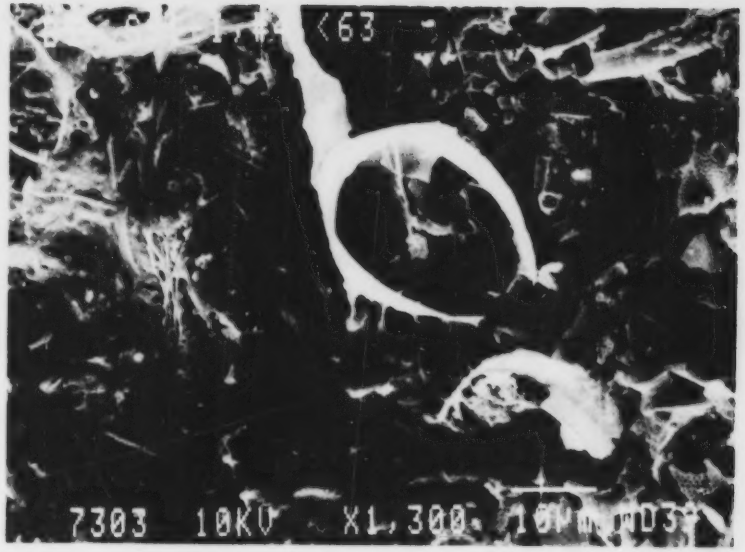
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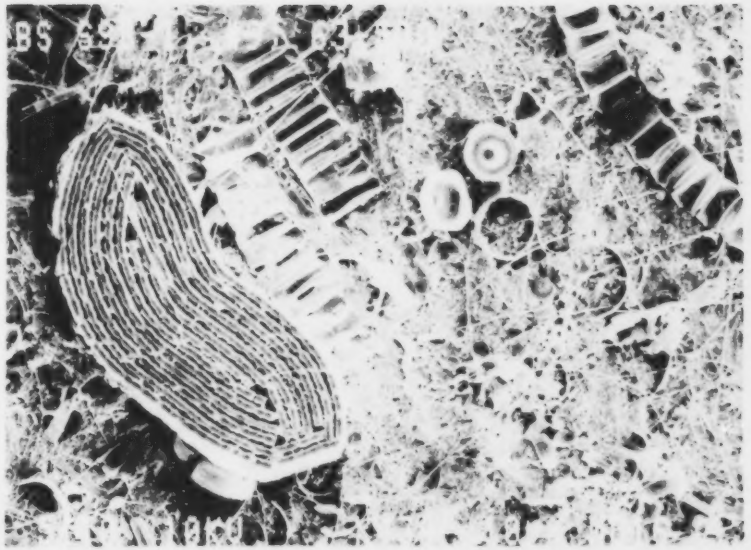
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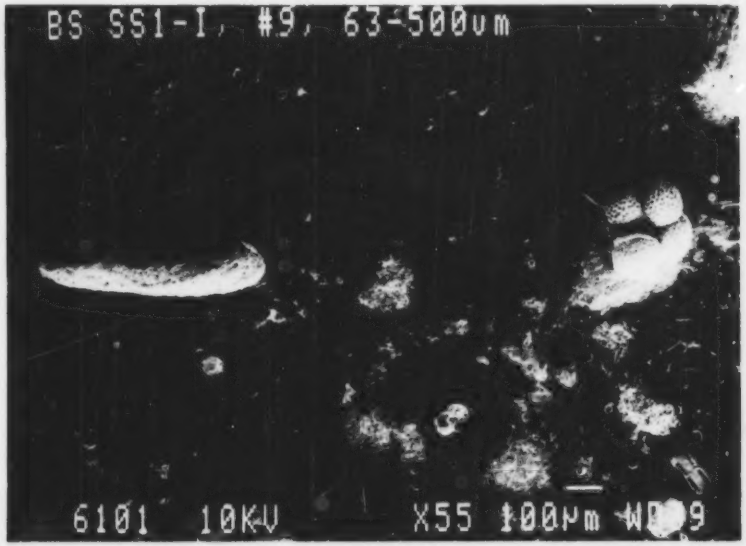
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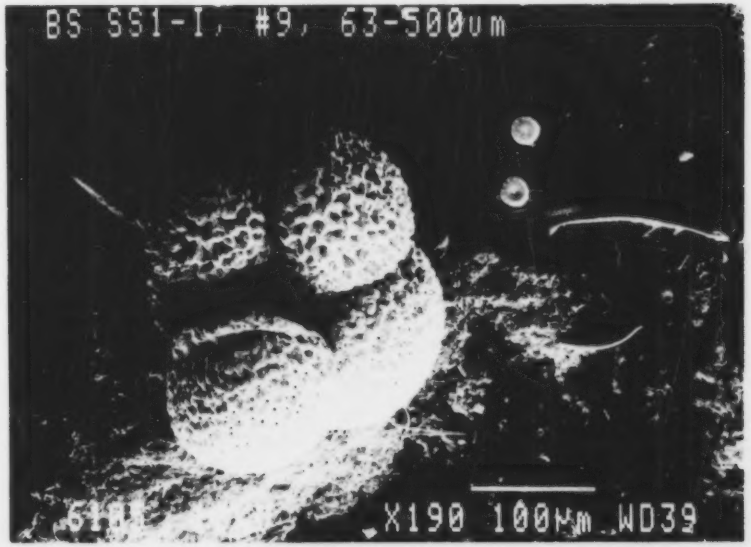
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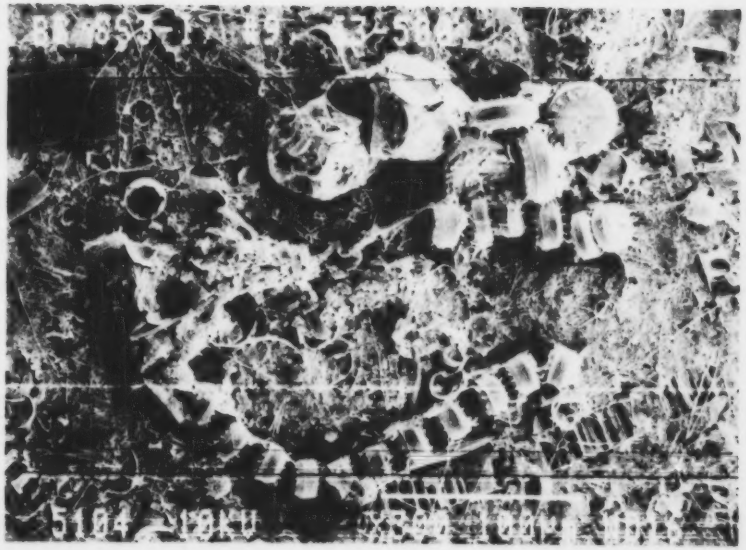

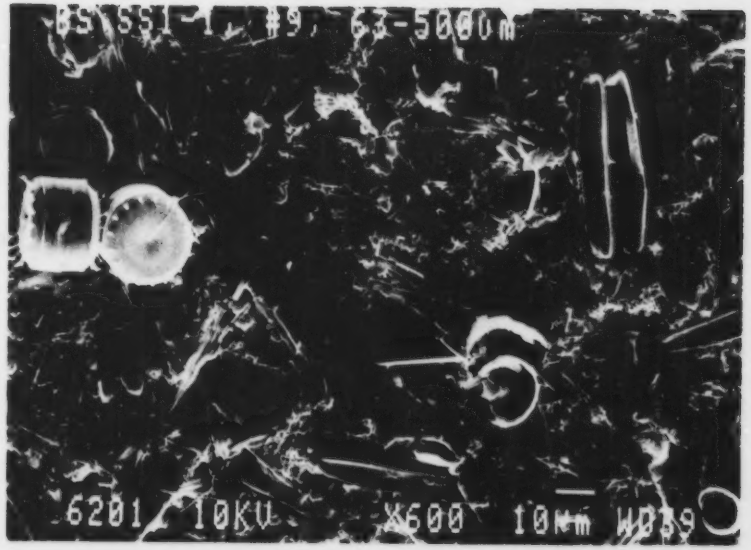
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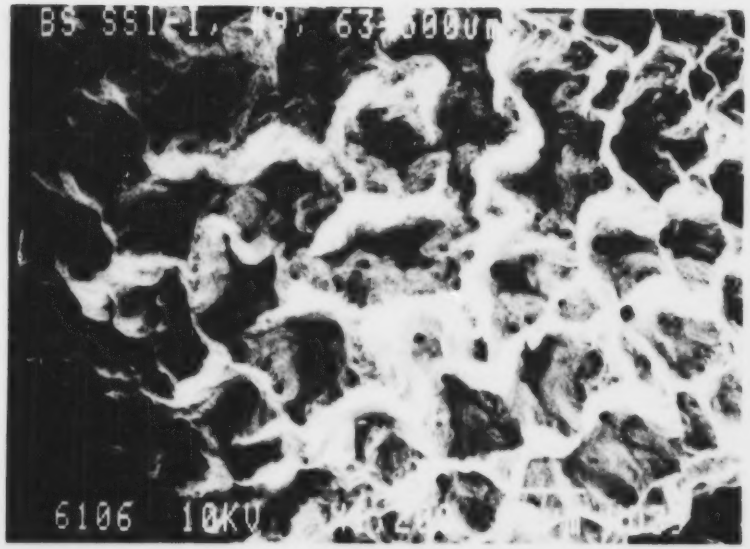
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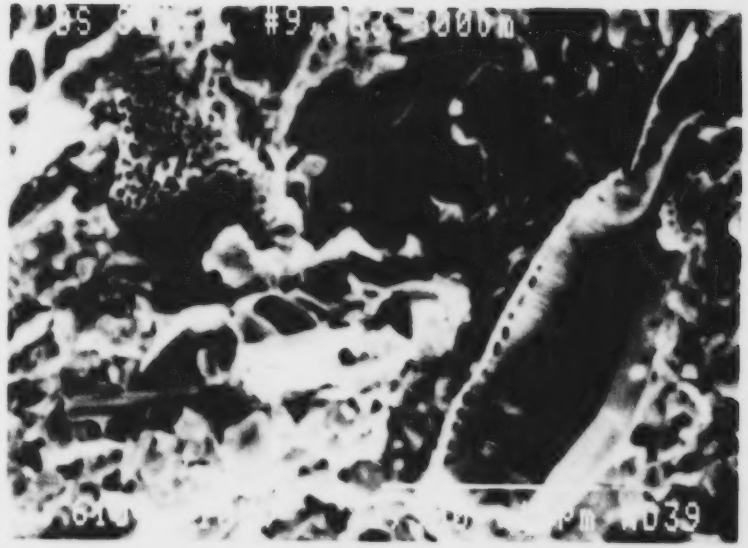

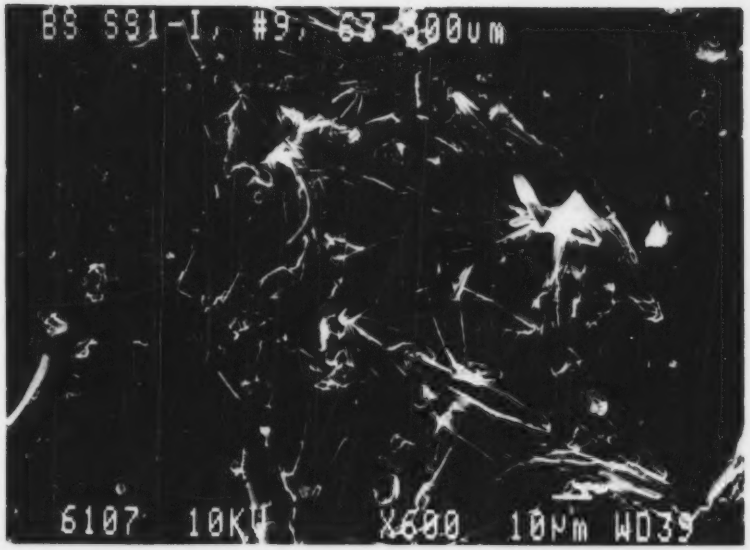
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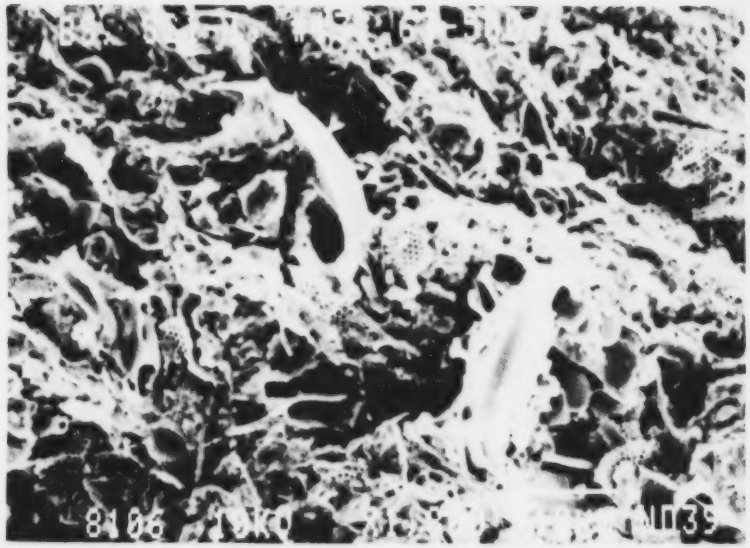

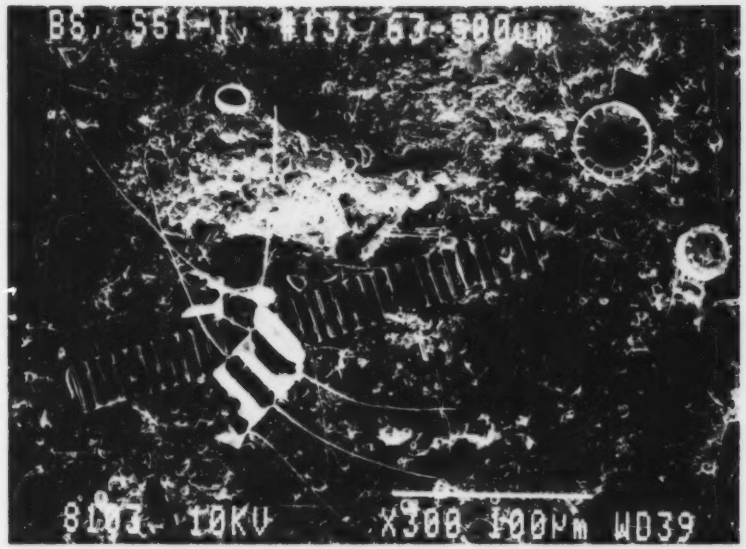
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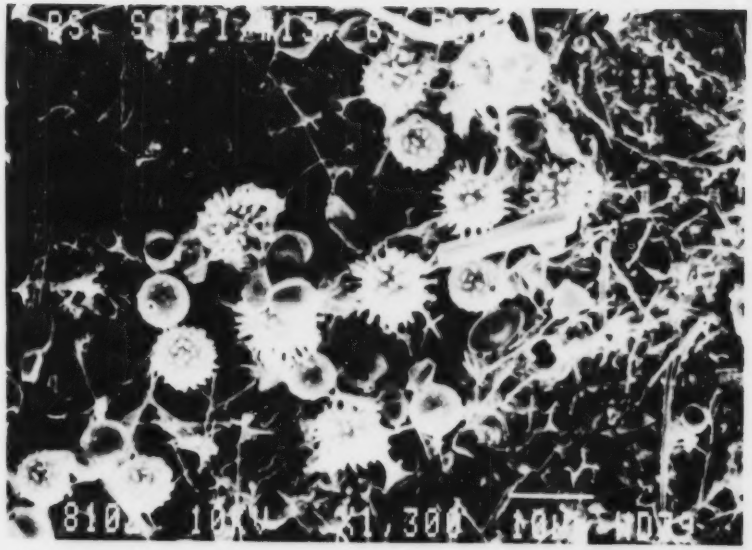

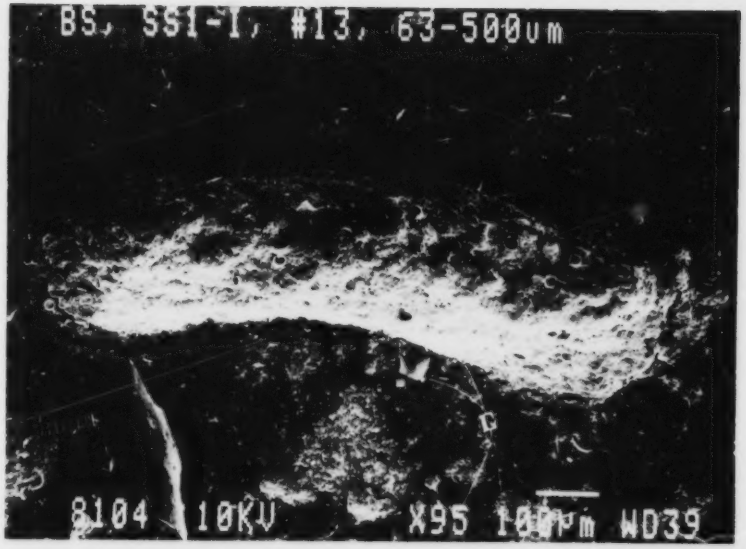
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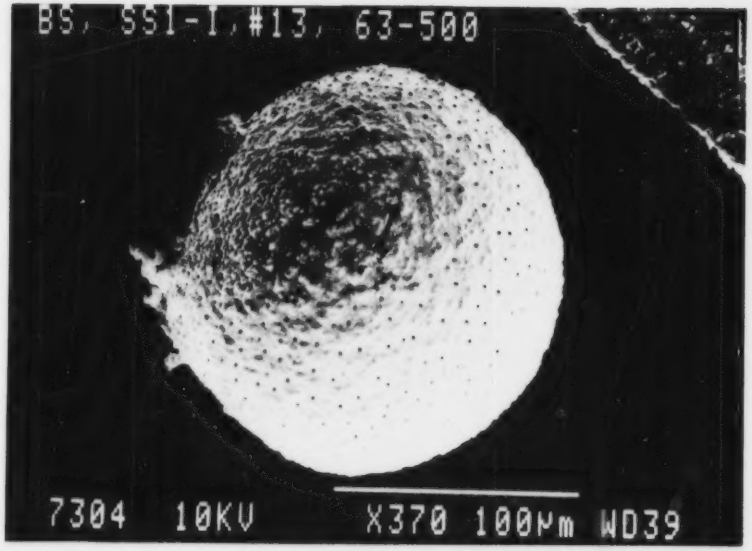
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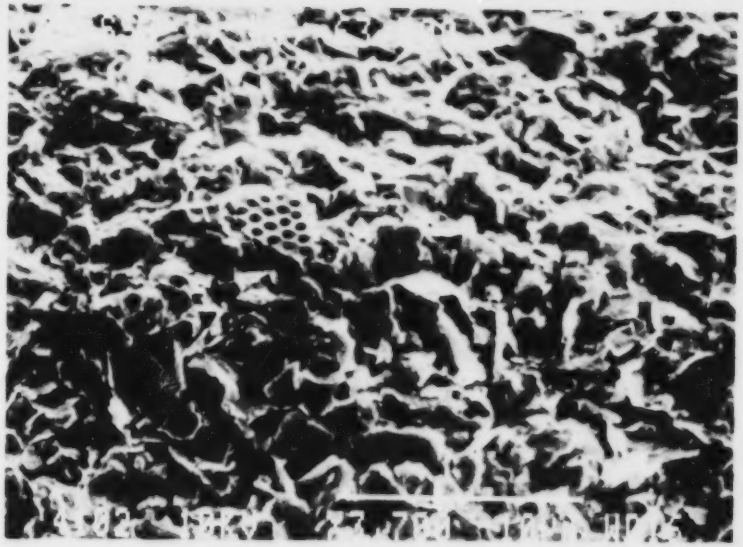

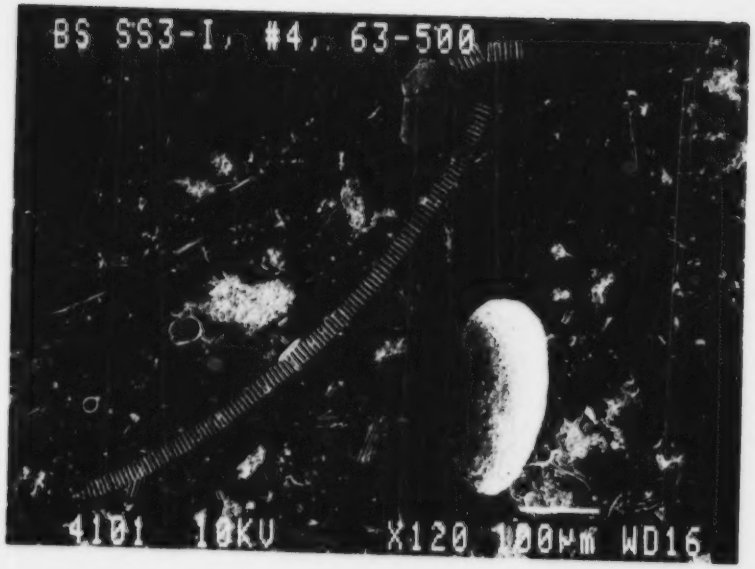
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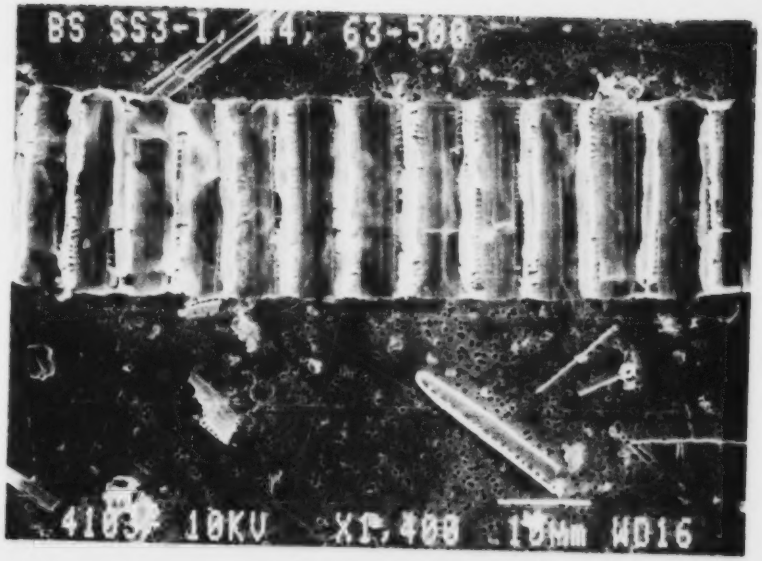
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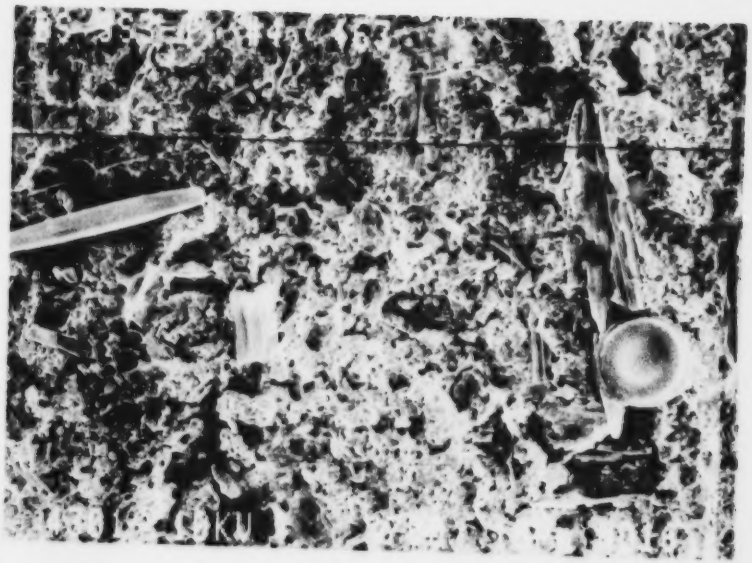
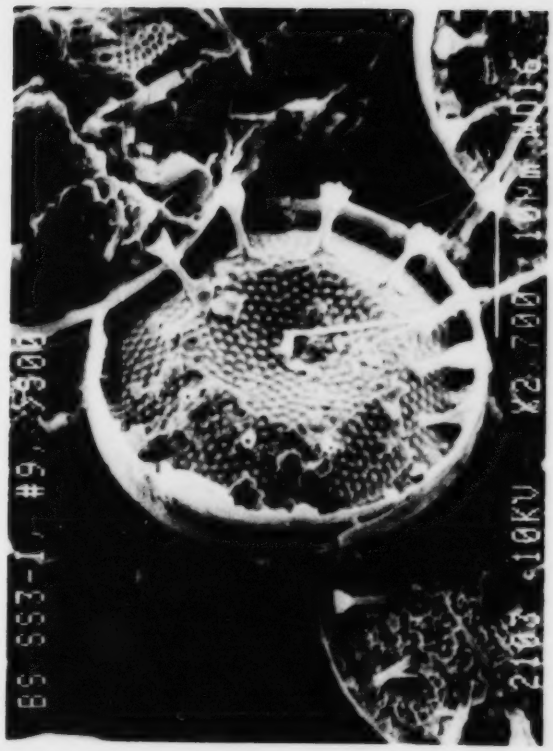
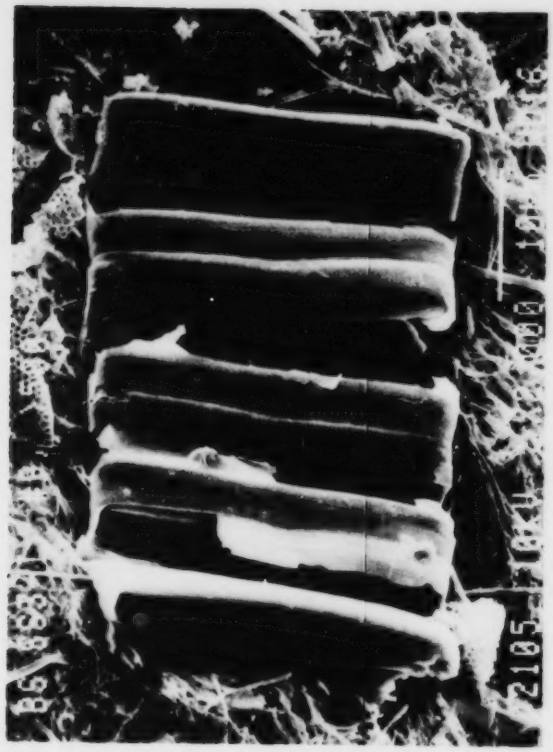
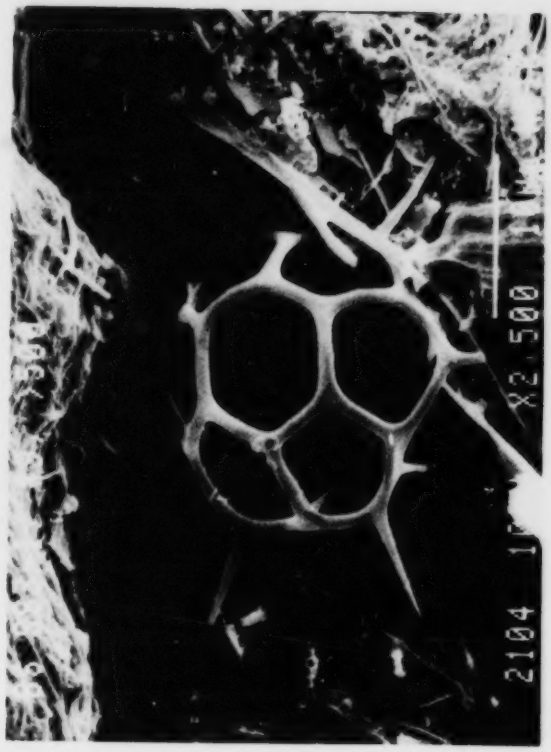
10KV

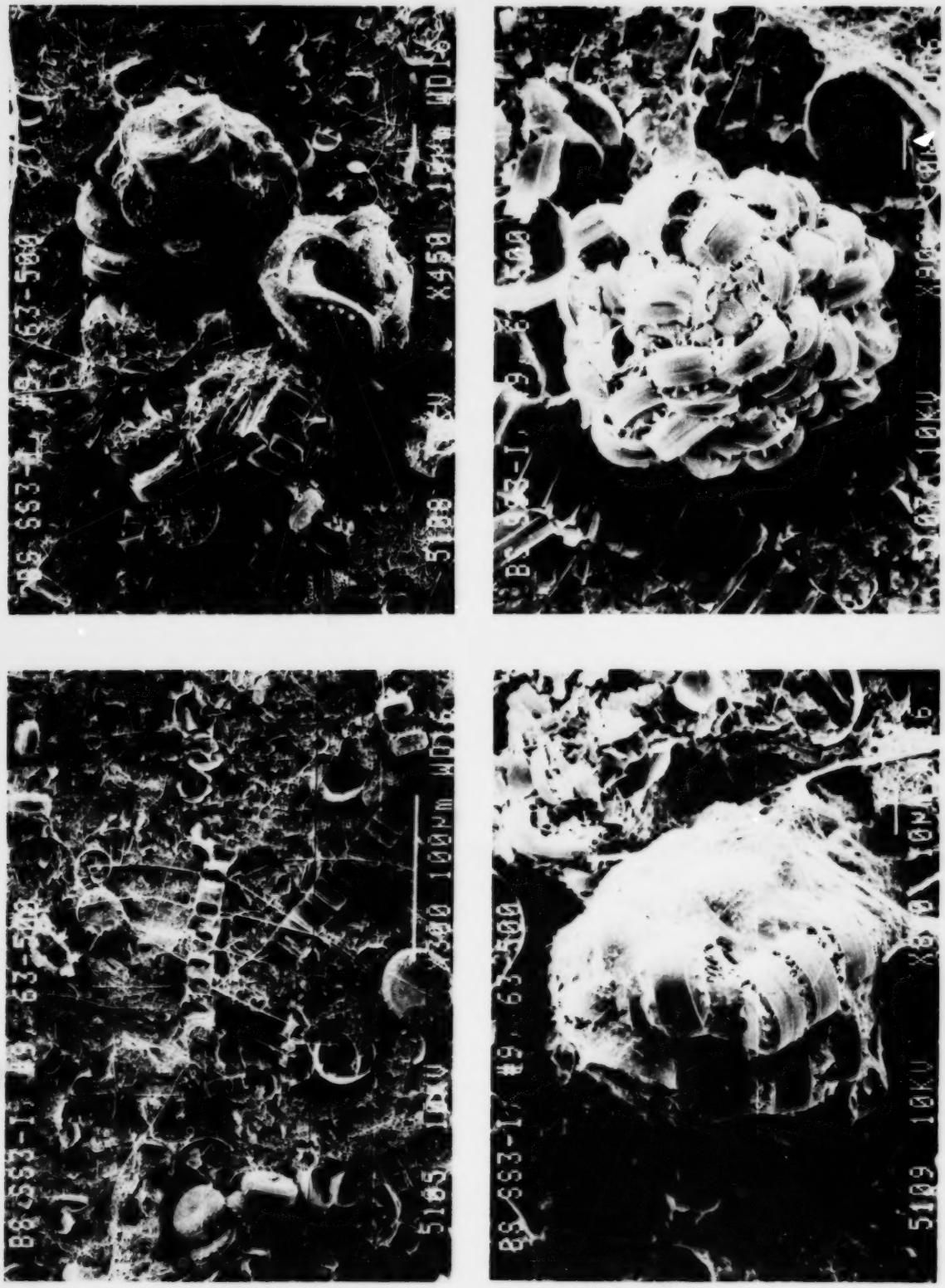


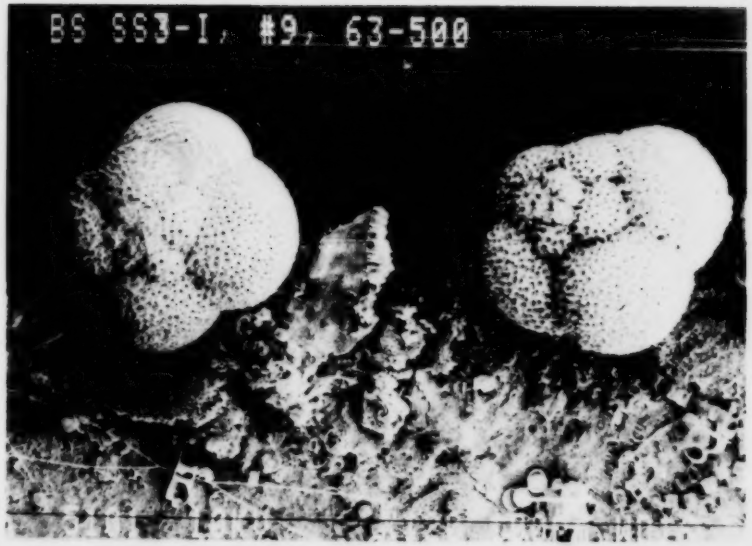
BS SS3-I, #9, >500
2101 10KV X20 1mm

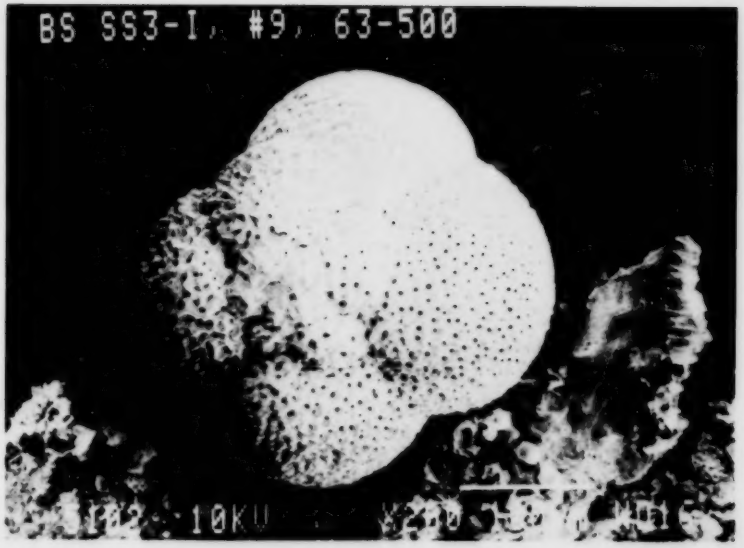


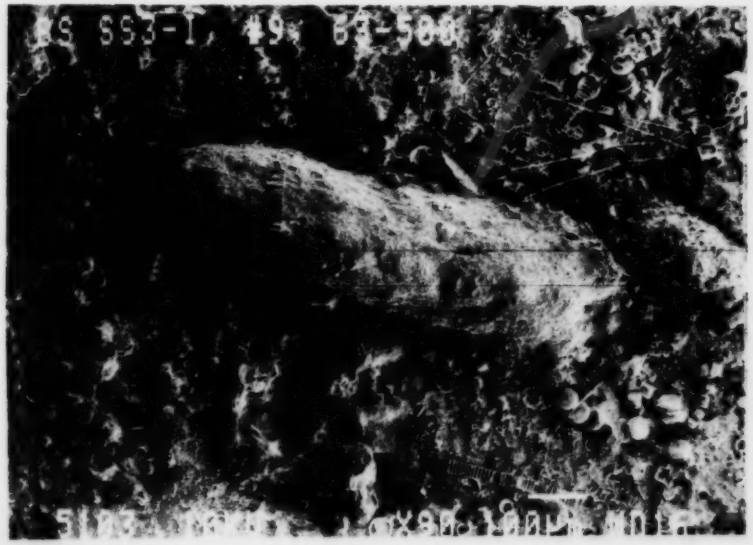


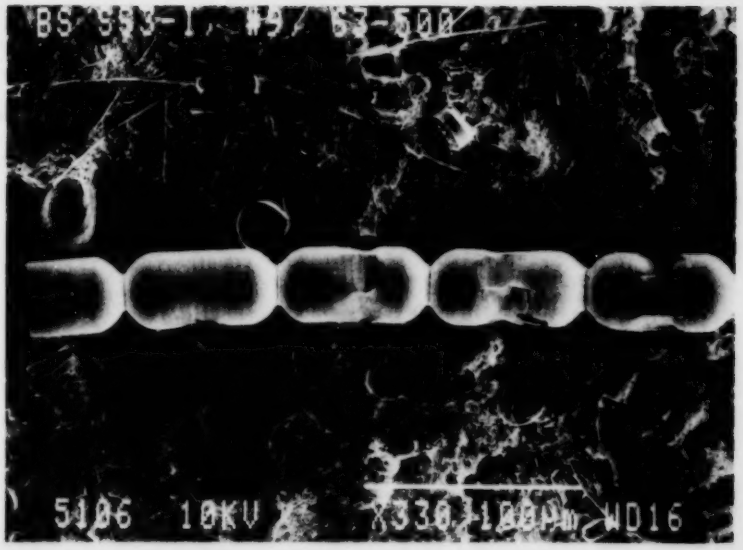





BS SS3-I, #9, 63-500


BS SS3-I, #9, 63-500


BS SS3-I, #9, 63-500


BS SS3-I, #9, 63-500
5106 10KV X330 100µm WD16

6 Appendix B

SEQUENTIAL SEDIMENT TRAP - SPLITTING INFORMATION AND FLUX CALCULATIONS < 500 μm FRACTION.

This Appendix contains information on the splitting, subsampling and flux calculations for the samples from stations SS1, SS2, SS3 and SS4. The Tables cover the first deployment followed by the second deployment. The first deployment Tables include all the size fractions (>500, 63-500 and <63) and the second deployment Tables include only the information for the 63-500 and the <63 μm fractions. For the first deployment, the >500 data are not complete as some of the samples were sent to Japan for analysis of carbon and nitrogen isotope analysis. For the second deployment, the >500 fraction is dealt with in APPENDIX C.

ABBREVIATIONS USED IN APPENDIX B (AND APPENDIX C)

SEQ# - sequence number.
X - samples marked by an X are not included in the flux calculation. See text for details on the flux calculations.
>>>> - column topped by >>>> contains information about conditions under which the POC and ^{13}C subsamples were dried. See text for explanation.
>, >>, >>>, >>>> - dried on aluminum foil, corrosion present.
P - POC and ^{13}C samples dried on a plastic Petri dish.
G - POC and ^{13}C samples dried on a glass Petri dish.

For the "SAMPLE TYPES" column (-n refers to replicate number):
POC - Organic carbon and nitrogen
^{13}C - Carbon and nitrogen isotopes
M - analysis of Al, Ca, Fe, Si and P
SEM - scanning electron microscope
LM - light microscope
CHLA - Chlorophyll and phaeo pigment
PIGMENT - pigment analysis

FILTER TYPES
S - silver filter - 25mm, 0.8 μm
N - Nuclepore filter - 47 mm, 0.45 μm
GFF - glass fiber filter

NOTES

1. Sent to Japan
2. Lost 50% of sample during filtration

3. Approximately 5% leaked out during filtration
4. Two 0.25 μm fractions were combined and approximately 15% was lost before splitting into 0.125 μm portions for POC and ^{13}C samples
5. Sample left out of refrigerater overnight
6. Station SS1-1, sequence 10, no chlorophyll or pigment sample for 63-500 μm fraction
7. Represents only a few hours after deployment
8. No sample - empty hole
9. Large pteropod in sample, no final weight as filter became stuck to glass
10. Oil slick on surface
11. Supernatant milky in appearance
12. Drops for SEM fraction are from M-4 fraction
13. Ice formation in samples overnight for subsamples POC-1 and POC-4; 2 mL were spilled from the total of 44 mL for the subsamples POC-1,2,3,4. A correction was made for the loss
14. Total volume for the SEM samples in 24 mL
15. No sample
16. Small amount of mucoid substance
17. Mucoid substance
18. Mucoid flux peak
19. Mucoid substance, size separation done without Nitex sieve

APPENDIX B – FIRST DEPLOYMENT
STATION SS1–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	1	12	>500	TOTAL	1.000	144.09	S						1
SS1-1	1	12	63-500	POC-1	0.250	115.90	S	119.54	3.64	>>	X	3.187	
			63-500	C13-1	0.250	144.18	S	148.00	3.82	>>	X		
			63-500	M-1	0.250	15.711	N	19.887	4.176				
			63-500	SEM	0.063	16.060	N	16.953	0.893				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	1	12	<63	POC-1	0.125	130.70	S	155.45	24.75	>>	X	30.145	
			<63	POC-2	0.125	120.44	S	142.29	21.85	>>	X		
			<63	C13-1	0.125	114.76	S	136.87	22.11	>>	X		
			<63	C13-2	0.125	118.39	S	124.59	6.20	>>	X		2
			<63	M-1	0.125	15.770	N	35.456	19.686				
			<63	M-2	0.125	15.624	N	33.988	18.364				
			<63	SEM	0.063	15.763	N	25.662	9.899				
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	2	13	>500	TOTAL	1.000				271.450			53.33	
			>500	ALGAE	1.000	17.050	N	25.360	8.310			1.63	
SS1-1	2	13	63-500	POC-1	0.125	131.36	S	137.62	6.26	>>	X	11.445	3
			63-500	POC-2	0.125	118.89	S	126.36	7.47	>	X		
			63-500	C13-1	0.125	114.25	S	121.90	7.65	>	X		
			63-500	C13-2	0.125	116.84	S	124.16	7.32	>>	X		
			63-500	M-1	0.125	15.883	N	22.913	7.030				
			63-500	M-2	0.125	15.755	N	22.812	7.057				
			63-500	SEM	0.063	16.135	N	20.253	4.118				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	2	13	<63	POC-1	0.125	116.04	S	238.99	122.95	>>>	X	177.377	
			<63	POC-2	0.125	125.14	S	244.38	119.24	>>	X		
			<63	C13-1	0.125	103.87	S	219.36	115.49	>>>	X		
			<63	C13-2	0.125	109.52	S	226.35	116.83	>>>	X		
			<63	M-1	0.125	15.463	N	132.720	117.257				
			<63	M-2	0.125	15.656	N	123.490	107.834				
			<63	SEM	0.063	15.790	N	72.839	57.049				
			<63		10 DROPS	15.933	N	16.681	0.748				
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	3	1	>500		1.000	147.70	S						
SS1-1	3	1	63-500	POC-1	0.125	129.86	S	136.32	6.46	>	X	11.238	
			63-500	POC-2	0.125	121.30	S	128.21	6.91	>	X		
			63-500	C13-1	0.125	127.66	S	135.47	7.81	>	X		
			63-500	C13-2	0.125	114.67	S	120.80	6.13	>	X		
			63-500	M-1	0.125	15.906	N	22.700	6.794				
			63-500	M-2	0.125	15.441	N	22.928	7.487				
			63-500	SEM	0.063	15.440	N	19.035	3.595				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	3	1	<63	POC-1	0.063	133.31	S	215.42	82.11	P	X	243.480	
			<63	POC-2	0.063	141.14	S	220.70	79.56	P	X		
			<63	POC-3	0.063	158.06	S	238.03	79.97	P	X		
			<63	POC-4	0.063	150.96	S	229.89	78.93	P	X		
			<63	C13-1	0.063	168.43	S	247.53	79.10	P	X		
			<63	C13-2	0.063	133.94	S	216.79	82.85	P	X		
			<63	C13-3	0.063	112.26	S	194.53	82.27	P	X		
			<63	C13-4	0.063	140.49	S	227.50	87.01	P	X		
			<63	M-1	0.063	15.742	N	93.607	77.865				
			<63	M-2	0.063	16.091	N	96.886	80.795				
			<63	M-3	0.063	16.224	N	91.660	75.436				
			<63	M-4	0.063	15.979	N	94.551	78.572				
			<63	SEM	0.063	15.523	N	90.140	74.617				
			<63	SEM	10 DROPS	16.053	N	16.943	0.890				
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	4	2	>500		1.000	141.77	S						1
SS1-1	4	2	63-500	POC-1	0.125	124.25	S	137.99	13.74	>	X	27.743	4
			63-500	POC-2	0.125	129.82	S	143.80	13.98	>	X		4
			63-500	C13-1	0.125	134.10	S	149.08	14.98	>	X		4
			63-500	C13-2	0.125	131.10	S	144.83	13.73	>	X		4
			63-500	M-1	0.125	15.934	N	34.489	18.555				
			63-500	M-2	0.125	15.699	N	33.049	17.350				
			63-500	SEM	0.063	15.620	N	23.843	8.223				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	4	2	<63	POC-1	0.063	117.13	S	218.45	101.32	>>	X	312.966	
			<63	POC-2	0.063	124.96	S	225.47	100.51	>>>	X		
			<63	POC-3	0.063	118.40	S	218.73	100.33	>>	X		
			<63	POC-4	0.063	132.84	S	228.41	95.57	>>>	X		
			<63	C13-1	0.063	129.69	S	227.91	98.22	>>	X		
			<63	C13-2	0.063	119.56	S	218.62	99.06	>>	X		
			<63	C13-3	0.063	119.93	S	221.51	101.58	>>	X		
			<63	C13-4	0.063	121.80	S	219.55	97.75	>>	X		
			<63	M-1	0.063	15.712	N	112.640	96.928				
			<63	M-2	0.063	15.828	N	114.990	99.162				
			<63	M-3	0.063	15.590	N	115.650	100.060				
			<63	M-4	0.063	15.798	N	115.340	99.542				
			<63	SEM	0.063	15.611	N	117.730	102.119				
			<63	SEM	10 DROPS	15.938	N	17.156	1.218				
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	5	3	>500	TOTAL	1.000	139.90	S	290.130	155.240			30.5	
			>500	ALGAE	1.000	139.90	S	144.910	5.010			0.98	
SS1-1	5	3	63-500	POC-1	0.125	132.78	S	143.49	10.71	G	X	17.260	
			63-500	POC-2	0.125	128.14	S	139.53	11.39	G	X		
			63-500	C13-1	0.125	129.15	S	140.97	11.82	G	X		
			63-500	C13-2	0.125	118.42	S	129.24	10.82	G	X		
			63-500	M-1	0.125	15.459	N	26.099	10.640				
			63-500	M-2	0.125	15.660	N	27.171	11.511				
			63-500	SEM	0.063	16.004	N	21.307	5.303				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	5	3	<63	POC-1	0.125	119.77	S	175.58	55.81	>>	X	86.882	
			<63	POC-2	0.125	121.87	S	177.68	55.81	>>	X		
			<63	C13-1	0.125	127.78	S	185.38	57.60	>>>	X		
			<63	C13-2	0.125	119.20	S	173.24	54.04	>>	X		
			<63	M-1	0.125	15.466	N	70.194	54.728				
			<63	M-2	0.125	15.551	N	71.380	55.829				
			<63	SEM	0.063	15.934	N	46.213	30.279		X		
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

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APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	6	4	>500		1.000	138.20	S						1
SS1-1	6	4	63-500	POC-1	0.125	127.51	S	131.71	4.20	>>	X	5.582	
			63-500	POC-2	0.125	126.27	S	130.19	3.92	>	X		
			63-500	C13-1	0.125	132.30	S	136.99	4.69	>	X		
			63-500	C13-2	0.125	123.50	S	126.90	3.40	G	X		
			63-500	M-1	0.125	15.915	N	19.105	3.190				
			63-500	M-2	0.125	15.816	N	19.320	3.504				
			63-500	SEM	0.063	15.667	N	17.852	2.185				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	6	4	<63	POC-1	0.125	126.65	S	164.46	37.81	>>	X	54.646	
			<63	POC-2	0.125	119.18	S	155.41	36.23	>>>	X		
			<63	C13-1	0.125	108.26	S	146.05	37.79	>>	X		
			<63	C13-2	0.125	121.46	S	160.07	38.61	>>	X		
			<63	M-1	0.125	16.164	N	50.640	34.476				
			<63	M-2	0.125	15.708	N	50.160	34.452				
			<63	SEM	0.063	15.822	N	33.816	17.994				
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	7	5	>500	TOTAL	1.000	176.20	S	278.18	98.66			19.38	
			>500	ALGAE	1.000	118.15	S	121.17	3.32			0.65	
SS1-1	7	5	63-500	POC-1	0.125	123.34	S	127.15	3.81	>>	X	4.472	
			63-500	POC-2	0.125	131.11	S	134.84	3.73	>>	X		
			63-500	C13-1	0.125	130.91	S	133.70	2.79	>>	X		
			63-500	C13-2	0.125	131.08	S	133.76	2.68	>	X		
			63-500	M-1	0.125	15.294	N	18.699	3.405				
			63-500	M-2	0.125	15.499	N	17.838	2.339				
			63-500	SEM	0.063	15.483	N	16.852	1.369				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	7	5	<63	POC-1	0.125	108.33	S	169.77	61.44	G	X	95.614	
			<63	POC-2	0.125	131.98	S	194.04	62.06	G	X		
			<63	C13-1	0.125	114.83	S	176.25	61.42	G	X		
			<63	C13-2	0.125	129.55	S	190.66	61.11	G	X		
			<63	M-1	0.125	15.564	N	76.760	61.196				
			<63	M-2	0.125	15.833	N	75.640	59.807				
			<63	SEM	0.063	15.417	N	46.500	31.083				
			<63	SEM	10 DROPS	15.556	N	16.102	0.546				
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						5
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	8	6	>500	TOTAL	1.000	133.28	S		4.580			0.9	
			>500	ALGAE									
SS1-1	8	6	63-500	POC-1	0.125	129.85	S	133.62	3.77	>>	X	4.941	
			63-500	POC-2	0.125	116.49	S	120.48	3.99	>>	X		
			63-500	C13-1	0.125	128.33	S	131.47	3.14	>>	X		
			63-500	C13-2	0.125	126.13	S	128.86	2.73	>	X		
			63-500	M-1	0.125	16.027	N	19.081	3.054				
			63-500	M-2	0.125	15.532	N	18.765	3.233				
			63-500	SEM	0.063	15.479	N	16.922	1.443		X		
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	8	6	<63	POC-1	0.125	126.77	S	159.32	32.55	G	X	40.340	
			<63	POC-2	0.125	124.62	S	159.53	34.91	G	X		
			<63	C13-1	0.125	130.00	S	159.77	29.77	>>	X		
			<63	C13-2	0.125	133.06	S	163.26	30.20	>	X		
			<63	M-1	0.125	16.023	N	41.490	25.467				
			<63	M-2	0.125	15.825	N	41.691	25.866				
			<63	SEM	0.063	15.787	N	28.460	12.673		X		
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	9	7	>500		1.000	138.42	S						1
SS1-1	9	7	63-500	POC-1	0.250	132.94	S	137.88	4.94	>>	X	3.560	
			63-500	C13-1	0.250	124.66	S	132.05	7.39	>>>	X		
			63-500	M-1	0.250	15.862	N	19.864	4.002				
			63-500	SEM	0.063	15.523	N	17.184	1.661				
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	9	7	<63	POC-1	0.125	127.48	S	137.79	10.31	>>>	X	9.204	
			<63	POC-2	0.125	130.72	S	140.38	9.66	G	X		
			<63	C13-1	0.125	99.45	S	108.46	9.01	>>>	X		
			<63	C13-2	0.125	131.63	S	140.31	8.68	>>	X		
			<63	M-1	0.125	15.639	N	21.522	5.883				
			<63	M-2	0.125	15.514	N	21.343	5.829				
			<63	SEM	0.063	15.604	N	18.781	3.177		X		
			<63	LM	0.063		GFF						
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	10	8	>500	TOTAL	1.000	132.84	S		465.200			91.44	
			>500	ALGAE	1.000				12.370			2.43	
SS1-1	10	8	63-500	POC-1	0.125	133.76	S	137.04	3.28	>	X	5.332	
			63-500	POC-2	0.125	126.52	S	129.68	3.16	>	X		
			63-500	C13-1	0.125	129.77	S	136.70	6.93	>>>	X		
			63-500	C13-2	0.125	125.65	S	128.96	3.31	>	X		
			63-500	M-1	0.125	15.566	N	18.856	3.290				
			63-500	M-2	0.125	15.822	N	19.317	3.495				
			63-500	SEM	0.063	15.862	N	17.540	1.678		X		
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						
			63-500	PIGMENT	0.063		GFF						
SS1-1	10	8	<63	POC-1	0.125	130.94	S	145.45	14.51	>>	X	10.296	
			<63	POC-2	0.125	132.82	S	147.05	14.23	>>	X		
			<63	C13-1	0.125	109.88	S	131.90	22.02	>>>>	X		
			<63	C13-2	0.125	119.77	S	133.31	13.54	>>	X		
			<63	M-1	0.125	15.497	N	21.896	6.399				
			<63	M-2	0.125	15.777	N	22.480	6.703				
			<63	SEM	0.063	15.537	N	19.416	3.879		X		
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	11	9	>500		1.000	118.82	S						1
SS1-1	11	9	63-500	POC-1	0.125	125.59	S	129.81	4.22	>>	X	4.780	
			63-500	POC-2	0.125	124.16	S	127.56	3.40	>>	X		
			63-500	C13-1	0.125	123.62	S	126.33	2.71	>>	X		
			63-500	C13-2	0.125	120.11	S	123.95	3.84	>>	X		
			63-500	M-1	0.125	15.664	N	18.433	2.769				
			63-500	M-2	0.125	15.747	N	19.060	3.313				
			63-500	SEM	0.063	16.029	N	17.692	1.663		X		
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						5
			63-500	PIGMENT	0.063		GFF						
SS1-1	11	9	<63	POC-1	0.125	109.07	S	122.62	13.55	>>	X	14.457	
			<63	POC-2	0.125	123.44	S	135.95	12.51	>	X		
			<63	C13-1	0.125	114.14	S	126.73	12.59	>>>	X		
			<63	C13-2	0.125	128.14	S	140.76	12.62	>>	X		
			<63	M-1	0.125	15.634	N	24.598	8.964				
			<63	M-2	0.125	15.527	N	24.959	9.432				
			<63	SEM	0.063	15.473	N	20.734	5.261		X		
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						5
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
S1-1	12	10	>500	TOTAL	1.000	120.04	S		280.940			55.19	
				ALGAE	1.000	120.04	S		8.120			1.6	
S1-1	12	10	63-500	POC-1	0.125	128.35	S	129.52	1.17	>	X	1.567	6
			63-500	POC-2	0.125	93.10	S	94.11	1.01	>	X		
			63-500	C13-1	0.125	112.33	S	113.31	0.98	>	X		
			63-500	M-1	0.250	15.484	N	17.500	2.016				
			63-500	M-2	0.125	15.489	N	16.464	0.975				
			63-500	SEM	0.125	15.638	N	17.068	1.430		X		
			63-500	LM	0.125								
S1-1	12	10	<63	POC-1	0.125	127.84	S	130.07	2.23	>	X	2.699	
			<63	POC-2	0.125	121.46	S	123.84	2.38	>>	X		
			<63	C13-1	0.125	127.11	S	129.42	2.31	>>	X		
			<63	C13-2	0.125	118.71	S	121.00	2.29	>>	X		
			<63	M-1	0.125	15.938	N	17.435	1.497				
			<63	M-2	0.125	15.430	N	17.367	1.937				
			<63	SEM	0.063	15.716	N	16.624	0.908		X		
			<63	LM	0.063								
			<63	CHLA	0.063		GFF						5
			<63	PIGMENT	0.063		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS1–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS1-1	13	11	>500		1.000	147.40	S						1
SS1-1	13	11	63-500	POC-1	0.125	113.68	S	116.94	3.26	>>	X	4.520	
			63-500	POC-2	0.125	125.51	S	128.75	3.24	>>	X		
			63-500	C13-1	0.125	121.98	S	125.24	3.26	>	X		
			63-500	C13-2	0.125	130.48	S	133.72	3.24	>	X		
			63-500	M-1	0.125	15.591	N	18.546	2.955				
			63-500	M-2	0.125	15.860	N	18.657	2.797				
			63-500	SEM	0.063	16.656	N	17.427	0.771		X		
			63-500	LM	0.063								
			63-500	CHLA	0.063		GFF						5
			63-500	PIGMENT	0.063		GFF						
SS1-1	13	11	<63	POC-1	0.125	106.17	S	117.52	11.35	>>	X	12.918	
			<63	POC-2	0.125	115.34	S	127.03	11.69	>>	X		
			<63	C13-1	0.125	129.71	S	141.44	11.73	>>	X		
			<63	C13-2	0.125	121.96	S	132.91	10.95	>>	X		
			<63	M-1	0.125	15.795	N	23.941	8.146				
			<63	M-2	0.125	15.758	N	24.050	8.292				
			<63	SEM	0.063	16.074	N	19.848	3.774		X		
			<63	LM	0.0625								
			<63	CHLA	0.0625		GFF						5
			<63	PIGMENT	0.0625		GFF						

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS2-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS2-1	1	10	>500		1.000	113.03	S	116.85	3.82			7
SS2-1	2	0										8
SS2-1	3	1	>500	TOTAL	1.000	132.66	S	194.87	62.21		194.41	
			>500	ALGAE	1.000	132.66	S	146.04	13.38		41.81	
			<500	SEM	0.073	15.519	N	16.716	1.197			
			<500	LM	0.131							
SS2-1	3	1	63-500	POC-1	0.199	135.84	S	136.51	0.67	G	9.478	
			63-500	C13-1	0.199	137.44	S	137.97	0.53	G		
			63-500	M-1	0.199	15.965	N	16.585	0.620			
			63-500	M-2	0.199	15.912	N	16.505	0.593			
SS2-1	3	1	<63	POC-1	0.199	132.56	S	136.64	4.08	G	57.479	
			<63	C13-1	0.199	143.61	S	148.02	4.41	G		
			<63	M-1	0.199	15.241	N	18.440	3.199			
			<63	M-2	0.199	15.459	N	18.404	2.945			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS2–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS2-1	4	2	>500	TOTAL	1.000	141.05	S	170.22	29.17			
				ALGAE+PELLETS		141.05	S	148.31	7.26			
			<500	SEM	0.072	16.332	N	26.353	10.021		22.69	
			<500	LM	0.103							
SS2-1	4	2	63-500	POC-1	0.206	141.10	S	143.11	2.01	G		
			63-500	C13-1	0.206	140.51	S	142.16	1.65	G	25.426	
			63-500	M-1	0.206	15.306	N	17.547	2.241			
			63-500	M-2	0.206	16.102	N	16.911	0.809			
SS2-1	4	2	<63	POC-1	0.206	132.73	S	160.90	28.17	G		
			<63	C13-1	0.206	134.15	S	163.84	29.69	G	418.024	
			<63	M-1	0.206	15.800	N	42.720	26.920			
			<63	M-2	0.206	15.397	N	40.937	25.540			
SS2-1	5	3	>500	TOTAL	1.000	140.81	S					
			>500	ALGAE	1.000							9
			<500	SEM	0.056	15.473	N	17.601	2.128		27.34	
			<500	LM	0.125							
SS2-1	5	3	63-500	POC-1	0.205	138.22	S	138.97	0.75	G		
			63-500	C13-1	0.205	134.71	S	135.44	0.73	G	10.966	
			63-500	M-1	0.205	15.509	N	16.376	0.867			
			63-500	M-2	0.205	15.199	N	15.725	0.526			
SS2-1	5	3	<63	POC-1	0.205	134.16	S	144.99	10.83	G		
			<63	C13-1	0.205	125.14	S	135.74	10.60	G	148.588	
			<63	M-1	0.205	15.813	N	24.905	9.092			10
			<63	M-2	0.205	15.324	N	23.732	8.408			10

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS2-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS2-1	6	4	>500	TOTAL	1.000	134.76	S	200.76	66.00		206.25	
			>500	ALGAE	1.000	134.76	S	143.36	8.6		26.88	
			<500	SEM	0.050	16.009	N	20.788	4.779			
			<500	LM	0.111							
SS2-1	6	4	63-500	POC-1	0.210	137.56	S	140.11	2.55	G	34.186	
			63-500	C13-1	0.210	135.74	S	138.10	2.36	G		
			63-500	M-1	0.210	14.953	N	17.285	2.332			
			63-500	M-2	0.210	14.659	N	16.594	1.935			
SS2-1	6	4	<63	POC-1	0.210	135.52	S	157.86	22.34	G	300.978	
			<63	C13-1	0.210	136.96	S	158.53	21.57	G		
			<63	M-1	0.210	14.353	N	32.784	18.431			
			<63	M-2	0.210	14.349	N	32.804	18.455			
SS2-1	7	5	>500	TOTAL	1.000	137.66	S	162.69	25.03		78.22	1
			>500	ALGAE	1.000				8.81		27.53	
			<500	SEM	0.071	15.606	N	17.809	2.203			
			<500	LM	0.118							
SS2-1	7	5	63-500	POC-1	0.203	131.20	S	133.97	2.77	G	21.281	
			63-500	C13-1	0.203	132.01	S	132.38	0.37	G		
			63-500	M-1	0.203	14.804	N	16.107	1.303			
			63-500	M-2	0.203	14.829	N	15.914	1.085			
SS2-1	7	5	<63	POC-1	0.203	141.66	S	151.33	9.67	G	123.123	
			<63	C13-1	0.203	131.05	S	140.25	9.20	G		
			<63	M-1	0.203	14.826	N	21.715	6.889			
			<63	M-2	0.203	15.412	N	21.636	6.224			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS2–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS2-1	8	6	>500	TOTAL	1.000	138.97	S	171.08	32.11		100.34	1
			>500	ALGAE	1.000	138.97	S	145.48	6.51		20.34	
			<500	SEM	0.059	15.493	N	16.988	1.495			
			<500	LM	0.100							
SS2-1	8	6	63-500	POC-1	0.210	140.13	S	141.19	1.06	G	15.484	
			63-500	C13-1	0.210	132.98	S	134.27	1.29	G		
			63-500	M-1	0.210	15.473	N	16.191	0.718			
			63-500	M-2	0.210	15.499	N	16.599	1.100			
SS2-1	8	6	<63	POC-1	0.210	134.96	S	141.02	6.06	G	69.438	
			<63	C13-1	0.210	119.90	S	125.47	5.57	G		
			<63	M-1	0.210	16.612	N	20.165	3.553			
			<63	M-2	0.210	16.746	N	20.254	3.508			
SS2-1	9	7	>500	TOTAL	1.000	131.81	S	148.98	17.17		53.66	
			>500	ALGAE	1.000	131.81	S	139.57	7.76		24.25	
			<500	SEM	0.044	15.364	N	16.114	0.750			
			<500	LM	0.100							
SS2-1	9	7	63-500	POC-1	0.214	136.37	S	137.20	0.83	G	10.256	
			63-500	C13-1	0.214	138.13	S	138.96	0.83	G		
			63-500	M-1	0.214	15.364	N	15.910	0.546			
			63-500	M-2	0.214	15.251	N	15.854	0.603			
SS2-1	9	7	<63	POC-1	0.214	134.64	S	138.03	3.39	G	38.027	
			<63	C13-1	0.214	137.95	S	141.50	3.55	G		
			<63	M-1	0.214	15.468	N	17.232	1.764			
			<63	M-2	0.214	15.768	N	17.479	1.711			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS2–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS2-1	10	8	>500	TOTAL	1.000	134.58	S	142.31	7.73		24.16	11
			>500	ALGAE	1.000	134.58	S	138.82	4.24		13.25	
			<500	SEM	0.065	15.073	N	15.280	0.207			
			<500	LM	0.107							
SS2-1	10	8	63-500	POC-1	0.414	131.36	S	132.02	0.66	G	5.137	11
			63-500	C13-1	0.414	136.61	S	137.31	0.70	G		11
SS2-1	10	8	<63	POC-1	0.276	130.38	S	132.84	2.46	G	18.269	
			<63	C13-1	0.276	119.87	S	121.70	1.83	G		
			<63	M-1	0.276	15.136	N	15.683	0.547			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	1	1	>500	TOTAL	1.000	145.20	S		145.98			28.68	
			>500	ALGAE					7.69			1.51	
SS3-1	1	1	63-500	POC-1	0.500	113.44	S	113.68	0.24	>		0.0943	
			63-500	LM	0.500								
SS3-1	1	1	<63	POC-1	0.250	116.48	S	119.50	3.02	>>>	X	1.102	
			<63	C13-1	0.250	116.17	S				X		
			<63	M-1	0.250	15.192	N	16.851	1.659				
			<63	SEM	0.125	16.970	N	17.415	0.445				
			<63	LM	0.125								
SS3-1	2	2	>500	TOTAL	1.000	136.72	S		193.73			39.06	
			>500	ALGAE					8.83			1.73	
SS3-1	2	2	63-500	POC-1	0.500	127.13	S	128.37	1.24	>>	X	0.222	
			63-500	SEM	0.250	15.340	N	15.623	0.283				
			63-500	LM	0.250								
SS3-1	2	2	<63	POC-1	0.250	117.03	S	121.55	4.52	>>>	X	1.663	
			<63	C13-1	0.250	116.17	S	118.77	2.60	>>	X		
			<63	M-1	0.250	16.163	N	18.309	2.146				
			<63	SEM	0.125	16.586	N	17.615	1.029				
			<63	LM	0.125								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	3	3	>500	TOTAL	1.000	119.62	S		188.36			37.01	
			>500	ALGAE					5.55			1.08	
SS3-1	3	3	63-500	POC-1	0.250	123.41	S	125.34	1.93	>>>	X	0.642	
			63-500	C13-1	0.250	126.00	S	126.76	0.76	>>	X		
			63-500	M-1	0.250	15.927	N	16.674	0.747				
			63-500	SEM	0.125	15.715	N	16.193	0.478				
			63-500	LM	0.125								
SS3-1	3	3	<63	POC-1	0.250	128.32	S	140.04	11.72	>>	X	8.007	
			<63	C13-1	0.250	128.02	S	139.71	11.69	>>	X		
			<63	M-1	0.250	16.544	N	26.473	9.929				
			<63	M-2	0.125	16.014	N	20.963	4.949				
			<63	SEM	0.063	15.527	N	18.479	2.952				
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	4	4	>500		1.000	139.94	S		142.72			28.04	
			>500						4.13			0.81	
SS3-1	4	4	63-500	POC-1	0.250	111.02	S	113.58	2.56	>>	X	1.565	
			63-500	C13-1	0.250	101.03	S	103.07	2.04	>	X		
			63-500	M-1	0.250	15.750	N	17.627	1.877				
			63-500	SEM	0.125	15.960	N	17.071	1.111				
			63-500	LM	0.125								
SS3-1	4	4	<63	POC-1	0.125	120.19	S	138.38	18.19	>>	X	26.187	
			<63	POC-2	0.125	129.49	S	148.92	19.43	>>>>	X		
			<63	C13-1	0.125	109.62	S	127.23	17.61	>>	X		
			<63	C13-2	0.125	119.37	S	136.92	17.55	>>	X		
			<63	M-1	0.125	15.881	N	32.332	16.451				
			<63	M-2	0.125	15.685	N	32.871	17.186				
			<63	M-3	0.125	16.707	N	32.870	16.163				
			<63	SEM	0.063	15.750	N	24.265	8.515				
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	5	5	>500		1.000	137.50	S						1
SS3-1	5	5	63-500	POC-1	0.125	139.37	S	141.48	2.11	>>	X	2.737	
			63-500	POC-2	0.125	123.01	S	125.19	2.18	>>	X		
			63-500	C13-1	0.125	117.11	S	120.31	3.20	>>>	X		
			63-500	C13-2	0.125	131.99	S	134.05	2.06	>	X		
			63-500	M-1	0.250	16.264	N	19.700	3.436				
			63-500	M-2	0.125	15.642	N	17.373	1.731				
			63-500	SEM	0.063	15.912	N	16.841	0.929				
			63-500	LM	0.063								
SS3-1	5	5	<63	POC-1	0.125	128.63	S	139.90	11.27	>>	X	13.999	
			<63	POC-2	0.125	105.80	S	117.41	11.61	>>	X		
			<63	C13-1	0.125	128.59	S	139.87	11.28	>>	X		
			<63	C13-2	0.125	129.65	S	140.55	10.90	>>	X		
			<63	M-1	0.125	16.050	N	24.940	8.890				
			<63	M-2	0.125	15.906	N	24.648	8.742				
			<63	M-3	0.125	15.297	N	24.192	8.895				
			<63	SEM	0.063	16.717	N	21.364	4.647				
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	6	6	>500		1.000	110.54	S		117.76			23.14	
			>500		1.000	110.54	s		5.08			1.00	
SS3-1	6	6	63-500	POC-1	0.125	128.33	S	131.48	3.15	>>	X	3.983	
			63-500	POC-2	0.125	109.46	S	112.46	3.00	>>	X		
			63-500	C13-1	0.125	126.69	S	130.02	3.33	>>>	X		
			63-500	C13-2	0.125	111.93	S	115.09	3.16	>>	X		
			63-500	M-1	0.250	15.225	N	20.055	4.830				
			63-500	M-2	0.125	15.118	N	17.727	2.609				
			63-500	SEM	0.063	15.225	N	16.656	1.431				
			63-500	LM	0.063								
SS3-1	6	6	<63	POC-1	0.125	125.84	S	133.70	7.86	>>>	X	8.788	
			<63	POC-2	0.125	127.29	S	134.13	6.84	>>	X		
			<63	C13-1	0.125	143.60	S	150.73	7.13	>>	X		
			<63	C13-2	0.125	108.41	S	114.58	6.17	>	X		
			<63	M-1	0.250	15.779	N	26.761	10.982				
			<63	M-2	0.125	15.703	N	21.243	5.540				
			<63	SEM	0.063	16.100	N	19.148	3.048				
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS3-1	7	7	>500	TOTAL	1.000	119.44	S		133.45		26.22	
			>500	ALGAE	1.000	119.44	S		8.35		1.64	
SS3-1	7	7	63-500	POC-1	0.125	108.77	S	110.86	2.09	> X	2.955	
			63-500	POC-2	0.125	114.75	S	118.12	3.37	>>>> X		
			63-500	C13-1	0.125	116.93	S	119.70	2.77	>>> X		
			63-500	C13-2	0.125	132.78	S	135.63	2.85	>>> X		
			63-500	M-1	0.250	15.888	N	19.620	3.732			
			63-500	M-2	0.125	15.431	N	17.252	1.821			
			63-500	SEM	0.063	15.781	N	16.809	1.028			
			63-500	LM	0.063							
SS3-1	7	7	<63	POC-1	0.125	128.53	S	135.72	7.19	>> X	9.703	
			<63	POC-2	0.125	130.29	S	139.08	8.79	>> X		
			<63	C13-1	0.125	111.89	S	121.69	9.80	>>>> X		
			<63	C13-2	0.125	128.09	S	137.53	9.44	>>>> X		
			<63	M-1	0.250	15.987	N	28.225	12.238			
			<63	M-2	0.125	15.986	N	22.097	6.111			
			<63	SEM	0.063	16.200	N	19.459	3.259			
			<63	LM	0.063							

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	8	8	>500		1.000	133.18	S						1
SS3-1	8	8	63-500	POC-1	0.125	116.46	S	128.10	11.64	>>>	X	17.067	
			63-500	POC-2	0.125	129.85	S	142.03	12.18	>>	X		
			63-500	C13-1	0.125	122.47	S	135.37	12.90	G	X		
			63-500	C13-2	0.125	122.47	S	134.64	12.17	G	X		
			63-500	M-1	0.125	15.772	N	26.471	10.699				
			63-500	M-2	0.125	15.329	N	25.612	10.283				
			63-500	M-3	0.125	15.948	N	26.580	10.632				
			63-500	SEM	0.063	15.330	N	21.721	6.391				
			63-500	LM	0.063								
SS3-1	8	8	<63	POC-1	0.063	132.16	S	189.41	57.25	G	X	174.262	
			<63	POC-2	0.063	125.02	S	185.97	60.95	G	X		
			<63	POC-3	0.063	129.38	S	189.03	59.65	G	X		
			<63	POC-4	0.063	123.76	S	183.93	60.17	>>	X		
			<63	C13-1	0.063	127.86	S	186.37	58.51	>>>	X		
			<63	C13-2	0.063	103.11	S	162.63	59.52	>>>	X		
			<63	C13-3	0.063	106.74	S	167.39	60.65	G	X		
			<63	C13-4	0.063	131.14	S	190.44	59.30	G	X		
			<63	M-1	0.125	16.115	N	127.426	111.311				
			<63	M-2	0.125	15.458	N	125.670	110.212				
			<63	M-3	0.125	15.440	N	126.791	111.351				
			<63	M-4	0.047	15.633	N	56.920	41.287				12
			<63	SEM	0.016	15.337	N	28.860	13.523				
			<63	SEM	2 DROPS	15.533	N	15.909	0.376				12
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	9	9	>500		1.000	137.11	S						1
SS3-1	9	9	63-500	POC-1	0.125	120.92	S	138.84	17.92	>>>	X	24.361	
			63-500	POC-2	0.125	119.41	S	137.55	18.14	>>	X		
			63-500	C13-1	0.125	132.25	S	150.40	18.15	>>	X		
			63-500	C13-2	0.125	127.73	S	144.91	17.18	>>>	X		
			63-500	M-1	0.125	16.292	N	31.851	15.559				
			63-500	M-2	0.125	15.371	N	30.436	15.065				
			63-500	M-3	0.125	15.931	N	30.726	14.795				
			63-500	SEM	0.063	16.087	N	24.917	8.830				
			63-500	LM	0.063								
SS3-1	9	9	<63	POC-1	0.060	125.37	S	191.09	65.72	>>>	X	201.423	13
			<63	POC-2	0.060	126.15	S	188.44	62.29	>>>	X		13
			<63	POC-3	0.060	115.76	S	181.56	65.80	>>	X		13
			<63	POC-4	0.060	130.60	S	199.96	69.36	>>>	X		13
			<63	C13-1	0.063	127.67	S	196.26	68.59	>>>	X		
			<63	C13-2	0.063	134.20	S	202.42	68.22	>>	X		
			<63	C13-3	0.063	125.75	S	194.74	68.99	>>>	X		
			<63	C13-4	0.063	127.30	S	196.27	68.97	>>	X		
			<63	M-1	0.063	16.076	N	81.130	65.054				
			<63	M-2	0.063	15.910	N	77.470	61.560				
			<63	M-3	0.063	15.885	N	79.617	63.732				
			<63	M-4	0.063	15.964	N	77.720	61.756				
			<63	M-5	0.063	15.952	N	81.336	65.384				
			<63	SEM	0.063	15.514	N	80.954	65.440				14
			<63	SEM	10 DROPS	15.761	N	17.301	1.540				14
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	10	11	>500	TOTAL	1.000	112.18	S	522.90	410.72			80.69	
			>500	ALGAE	1.000		S		362.06			71.13	
SS3-1	10	11	63-500	POC-1	0.125	120.36	S	137.75	17.39	>>>	X	25.179	
			63-500	POC-2	0.125	119.96	S	135.72	15.76	>>	X		
			63-500	C13-1	0.125	129.84	S	146.35	16.51	>>>	X		
			63-500	C13-2	0.125	100.98	S	119.98	19.00	>>	X		
			63-500	M-1	0.250	15.934	N	48.650	32.716				
			63-500	M-2	0.125	15.429	N	30.466	15.037				
			63-500	SEM	0.063	15.937	N	24.255	8.318				
			63-500	LM	0.063								
SS3-1	10	11	<63	POC-1	0.063	115.85	S	152.25	36.40	>>	X	107.415	
			<63	POC-2	0.063	127.59	S	161.40	33.81	>>>	X		
			<63	POC-3	0.063	130.32	S	168.17	37.85	>>	X		
			<63	C13-1	0.063	108.67	S	142.11	33.44	>>>	X		
			<63	C13-2	0.063	129.32	S	165.83	36.51	>>>	X		
			<63	C13-3	0.063	264.25	S	302.00	37.75	>>	X		
			<63	M-1	0.125	15.558	N	84.001	68.443				
			<63	M-2	0.125	16.057	N	84.410	68.353				
			<63	M-3	0.125	15.843	N	83.389	67.546				
			<63	M-4	0.125	15.563	N	83.180	67.617				
			<63	SEM	0.063	15.585	N	50.742	35.157				
			<63	SEM	10 DROPS	15.781	N	16.208	0.427				
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS3-1	11	10	>500	ALGAE	1.000	144.93	S	146.99	2.06			0.400	
SS3-1	11	10	63-500	POC-1	1.000	119.43	S	120.18	0.75	>>		0.147	
SS3-1	11	10	<63	POC-1	0.250	125.78	S	132.62	6.84	>>>	X	1.164	
			<63	C13-1	0.250	105.00	S	109.30	4.30	>	X		
			<63	M-1	0.500	15.539	N	18.501	2.962				
SS3-1	12	12	>500										15
SS3-1	12	12	63-500	POC-1	1.000	121.49	S	122.85	1.36	>>		0.267	
SS3-1	12	12	<63	POC-1	0.500	106.56	S	110.81	4.25	>	X	1.119	
			<63	M-1	0.500	15.885	N	18.734	2.849				
SS3-1	13	13	>500		1.000	193.00	S						15
SS3-1	13	13	63-500	POC-1	1.000	123.56	S	124.52	0.96	>		0.189	
SS3-1	13	13	<63	POC-1	0.500	123.90	S	129.33	5.43	>>>	X	1.48	
			<63	M-1	0.500	16.008	N	19.774	3.766				

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS3–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS3-1	FUNNEL		>500		1.000		S					15
SS3-1	FUNNEL		63-500	POC-1	0.250	128.62	S	131.65	3.03	>>>		
			63-500	C13-1	0.250	105.02	S	107.48	2.46	>>		
			63-500	M-1	0.250	15.512	N	18.038	2.526			
			63-500	LM	0.250							
SS3-1	FUNNEL		<63	POC-1	0.250	132.91	S	204.46	71.55	>>		
			<63	C13-1	0.250	105.99	S	179.04	73.05	>>		
			<63	M-1	0.250	16.056	N	86.674	70.618			
			<63	SEM	0.063	15.520	N	32.333	16.813			
			<63	LM	0.063							

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS4-1	1	1	>500	TOTAL	1.000	135.25	S	156.89	21.64	G	67.62	
			>500	ALGAE	1.000	135.25	S	138.10	2.85		8.91	
SS4-1	1	1	<500	SEM	0.053	15.245	N	15.578	0.333			
			<500	LM	0.112							
SS4-1	1	1	63-500	POC-1	0.418	139.93	S	140.57	0.64	G	3.853	
			63-500	C13-1	0.418	128.88	S	129.27	0.39	G		
SS4-1	1	1	<63	POC-1	0.278	135.44	S	137.53	2.09	G	22.990	
			<63	C13-1	0.278	137.66	S	140.53	2.87	G		
			<63	M-1	0.278	15.543	N	16.728	1.185			
SS4-1	2	2	>500	TOTAL	1.000	140.07	S	164.79	24.72	G	77.25	
			>500	ALGAE	1.000	140.07	S	143.36	3.29		10.29	
SS4-1	2	2	<500	SEM	0.049	15.821	N	16.304	0.483			
			<500	LM	0.092							
SS4-1	2	2	63-500	POC-1	0.430	138.71	S	139.13	0.42	G	3.989	
			63-500	M-1	0.430	16.357	N	17.034	0.677			
SS4-1	2	2	<63	POC-1	0.286	136.15	S	139.33	3.18	G	30.527	
			<63	C13-1	0.286	123.99	S	127.23	3.24	G		
			<63	M-1	0.286	15.311	N	17.287	1.976			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS4-1	3	3	>500	TOTAL	1.000	134.57	S	142.55	7.98		24.94	
			>500	ALGAE	1.000	134.57	S	136.38	1.81		5.66	
SS4-1	3	3	<500	SEM	0.053	16.112	N	17.090	0.978			
			<500	LM	0.106							
SS4-1	3	3	63-500	POC-1	0.420	131.18	S	131.94	0.76	G	5.245	
			63-500	M-1	0.420	14.978	N	15.629	0.651			
SS4-1	3	3	<63	POC-1	0.210	140.18	S	145.46	5.28	G	62.275	
			<63	C13-1	0.210	141.78	S	147.03	5.25	G		
			<63	M-1	0.210	15.029	N	18.191	3.162			
			<63	M-2	0.210	15.014	N	18.074	3.060			
SS4-1	4	4	>500	TOTAL	1.000	136.23	S	158.30	22.07	G	68.97	
			>500	ALGAE	1.000	136.23	S	139.37	3.14		9.81	
SS4-1	4	4	<500	SEM	0.052	15.747	N	20.792	5.045			
SS4-1	4	4	63-500	POC-1	0.237	134.18	S	137.01	2.83	G	32.121	
			63-500	C13-1	0.237	140.23	S	142.63	2.40	G		
			63-500	M-1	0.237	15.474	N	17.619	2.145			
			63-500	M-2	0.237	15.423	N	17.794	2.371			
SS4-1	4	4	<63	POC-1	0.237	136.10	S	163.58	27.48	G	339.532	
			<63	C13-1	0.237	127.19	S	155.64	28.45	G		
			<63	M-1	0.237	15.543	N	39.299	23.756			
			<63	M-2	0.237	15.454	N	38.787	23.333			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS4-1	5	5	>500	TOTAL	1.000	140.41	S	155.24	14.83	G	46.34	16
			>500	ALGAE	1.000	140.41	S	143.57	3.16		9.87	
SS4-1	5	5	<500	SEM	0.033	16.223	N	40.560	24.337			
			<500	LM	0.127							
SS4-1	5	5	63-500	POC-1	0.210	126.14	S	137.64	11.50	>>>> X	172.701	
			63-500	C13-1	0.210	108.62	S	115.99	7.37	> X		
			63-500	M-1	0.210	15.236	N	25.578	10.342			
			63-500	M-2	0.210	15.432	N	28.301	12.869			
SS4-1	5	5	<63	POC-1	0.092	136.30	S	201.26	64.96	>>>> X	2082.479	
			<63	POC-2	0.092	129.20	S	195.30	66.10	>>>> X		
			<63	POC-3	0.092	104.17	S	170.83	66.66	>> X		
			<63	C13-1	0.092	105.43	S	171.32	65.89	>>>> X		
			<63	C13-2	0.092	135.02	S	207.26	72.24	>>>> X		
			<63	M-1	0.092	15.452	N	78.720	63.268			
			<63	M-2	0.092	15.452	N	68.860	53.408			
			<63	M-3	0.092	15.452	N	79.932	64.480			
			<63	M-4	0.092	15.452	N	80.080	64.628			
			<63	M-5	0.092	15.452	N	77.045	61.593			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS4-1	6	6	>500	TOTAL	1.000	142.44	S	169.96	27.52	G		86.00	17
			>500	ALGAE	1.000	142.44	S	156.74	14.3			44.69	
SS4-1	6	6	<500	SEM	0.165	15.229	N	24.409	9.180				
SS4-1	6	6	63-500	POC-1	0.209	137.25	S	153.06	15.81	>>	X	269.019	
			63-500	C13-1	0.209	138.33	S	154.79	16.46	>>	X		
			63-500	M-1	0.209	15.361	N	35.679	20.318				
			63-500	M-2	0.209	15.489	N	31.131	15.642				
SS4-1	6	6	<63	POC-1	0.104	111.30	S	164.90	53.60	>	X	1613.986	
			<63	POC-2	0.104	131.55	S	194.54	62.99	>>	X		
			<63	C13-1	0.104	121.43	S	178.95	57.52	>>	X		
			<63	C13-2	0.104	129.91	S	184.63	54.72	>	X		
			<63	M-1	0.209	15.537	N	120.070	104.533				
			<63	M-2	0.209	15.460	N	126.670	111.210				

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS4-1	7	7	>500	TOTAL	1.000	138.09	S	216.75	78.66		245.81	18
			>500	ALGAE	1.000	138.09	S	210.53	72.88		226.38	
SS4-1	7	7	<500	SEM	0.016	15.437	N	25.087	9.650			
			<500	LM	0.063							
SS4-1	7	7	63-500	POC-1	0.230	140.80	S	166.25	25.45	> X	335.614	
			63-500	C13-1	0.230	142.20	S	169.20	27.00	>> X		
			63-500	M-1	0.230	16.409	N	39.216	22.807			
			63-500	M-2	0.230	15.231	N	41.927	26.696			
SS4-1	7	7	<63	POC-1	0.058	119.73	S	158.83	39.10	>>> X	1639.393	
			<63	POC-2	0.058	106.66	S	136.54	29.88	>> X		
			<63	POC-3	0.058	144.52	S	176.74	32.22	>>> X		
			<63	C13-1	0.058	143.63	S	183.14	39.51	>>>> X		
			<63	C13-2	0.058	124.96	S	157.01	32.05	>> X		
			<63	C13-3	0.058	104.30	S	129.70	25.40	>>> X		
			<63	M-1	0.058	15.962	N	47.314	31.352			
			<63	M-2	0.058	15.523	N	48.930	33.407			
			<63	M-3	0.230	16.167	N	129.880	113.713			
			<63	M-4	0.230	15.199	N	138.990	123.791			

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS4-1	8	8	>500	TOTAL	1.000	135.80	S	259.23	123.43	G		385.72	
			>500	ALGAE	1.000	135.80	S	25.92	116.12			362.88	
SS4-1	8	8	63-500	POC-1	0.063	120.29	S	129.66	9.37	>>	X	457.400	
			63-500	POC-2	0.063	132.91	S	144.95	12.04	>>	X		
			63-500	C13-1	0.125	130.35	S	144.77	14.42	>	X		
			63-500	C13-2	0.125	122.30	S	138.37	16.07	>	X		
			63-500	M-1	0.250	16.183	N	51.607	35.424				
			63-500	M-2	0.250	15.973	N	52.707	36.734				
			63-500	SEM	0.063	15.816	N	25.990	10.174				
			63-500	LM	0.063								
SS4-1	8	8	<63	POC-1	0.063	101.34	S	115.22	13.88	>>	X	587.022	
			<63	POC-2	0.063	118.58	S	132.46	13.88	>>	X		
			<63	C13-1	0.125	126.64	S	153.35	26.71	>>	X		
			<63	C13-2	0.125	125.65	S	153.00	27.35	>>>	X		
			<63	M-1	0.250	16.778	N	61.790	45.012				
			<63	M-2	0.250	15.518	N	62.896	47.378				
			<63	SEM	0.063	15.331	N	28.605	13.274				
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>> X	FLUX (mg/m2/day)	NOTES
SS4-1	9	9	>500	TOTAL	1.000	140.53	S	194.41	53.88	G	168.37	19
			>500	ALGAE	1.000	140.53	S		41.82		130.6	
SS4-1	9	9	63-500	POC-1	0.250	114.43	S	118.62	4.19	>> X	47.480	
			63-500	POC-2	0.125	118.23	S	119.95	1.72	>> X		
			63-500	C13-1	0.250	122.28	S	125.78	3.50	>> X		
			63-500	M-1	0.250	15.147	N	19.140	3.993			
			63-500	SEM	0.063	15.926	N	16.681	0.755			
			63-500	LM	0.063							
SS4-1	9	9	<63	POC-1	0.063	115.05	S	119.01	3.96	>> X	80.583	
			<63	POC-2	0.063	132.05	S	136.13	4.08	>>> X		
			<63	C13-1	0.125	120.22	S	143.73	23.51	>>>> X		
			<63	C13-2	0.125	116.16	S	123.51	7.35	>>> X		
			<63	M-1	0.250	15.523	N	21.915	6.392			
			<63	M-2	0.250	16.006	N	22.343	6.337			
			<63	SEM	0.063	16.130	N	17.906	1.776			
			<63	LM	0.063							

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – FIRST DEPLOYMENT
STATION SS4–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACTION	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	>>>>	X	FLUX (mg/m2/day)	NOTES
SS4-1	10	10	>500	TOTAL	1.000	136.09	S	191.77	55.68	G		174.00	
			>500	ALGAE	1.000	136.09	S	187.02	50.93			158.16	
SS4-1	10	10	63-500	POC-1	0.063	97.98	S	99.45	1.47	>	X	71.461	
			63-500	POC-2	0.063	130.51	S	132.03	1.52	>>	X		
			63-500	C13-1	0.125	130.61	S	134.13	3.52	>>>	X		
			63-500	C13-2	0.125	128.85	S	131.97	3.12	>>	X		
			63-500	M-1	0.250	15.281	N	22.015	6.734				
			63-500	M-2	0.250	16.148	N	20.782	4.634				
			63-500	SEM	0.063	15.922	N	17.417	1.495				
			63-500	LM	0.063								
SS4-1	10	10	<63	POC-1	0.125	126.87	S	132.84	5.97	>>	X	81.030	
			<63	POC-2	0.125	126.10	S	132.54	6.44	>>>	X		
			<63	POC-3	0.125	117.16	S	121.90	4.74	>>	X		
			<63	C13-1	0.250	119.25	S	129.70	10.45	>>	X		
			<63	M-1	0.250	15.163	N	21.602	6.439				
			<63	SEM	0.063	15.764	N	17.428	1.664				
			<63	LM	0.063								

See first page of APPENDIX B for explanations of calculations, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	1	1	63-500	POC-1	0.125	145.200	S	190.030	44.830	44.072
			63-500	C13-1	0.188	168.380	S	235.190	66.810	
			63-500	M-1	0.250	15.414	N	104.456	89.042	
			63-500	M-2	0.125	14.780	N	57.221	42.441	
			63-500	SEM	0.063	14.322	N	40.390	26.068	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS1-2	1	1	<63	POC-1	0.063	196.640	S	710.500	513.860	1039.712
			<63	POC-2	0.031	201.640	S	464.510	262.870	
			<63	C13-1	0.063	199.140	S	711.750	512.610	
			<63	C13-2	0.125	174.260	S	1269.650	1095.390	
			<63	M-1	0.063	14.824	N	530.690	515.866	
			<63	M-2	0.063	14.644	N	538.990	524.346	
			<63	M-3	0.250	14.770	N	2145.900	2131.130	
			<63	SEM	0.016	15.469	N	148.443	132.974	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.250		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	2	2	63-500	POC-1	0.125	157.560	S	219.830	62.270	61.420
			63-500	C13-1	0.188	146.210	S	239.490	93.280	
			63-500	M-1	0.250	15.355	N	138.480	123.125	
			63-500	M-2	0.125	15.062	N	80.442	65.380	
			63-500	SEM	0.063	13.987	N	45.085	31.098	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS1-2	2	2	<63	POC-1	0.063	189.750	S	496.000	306.250	613.053
			<63	C13-1	0.063	150.380	S	455.380	305.000	
			<63	M-1	0.063	14.615	N	339.800	325.185	
			<63	M-2	0.063	15.455	N	316.790	301.335	
			<63	SEM	0.016	15.123	N	103.540	88.417	
			<63	CHLA	0.031		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					
			<63	FROZEN	0.250					
			<63	FROZEN	0.250					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	3	3	63-500	POC-1	0.125	193.900	S	244.790	50.890	50.508
			63-500	C13-1	0.188	185.450	S	273.530	88.080	
			63-500	M-1	0.250	15.155	N	113.959	98.804	
			63-500	M-2	0.125	14.762	N	60.935	46.173	
			63-500	SEM	0.063	14.988	N	39.546	24.558	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS1-2	3	3	<63	POC-1	0.063	143.900	S	1516.820	1372.920	2661.236
			<63	C13-1	0.063	142.140	S	1565.230	1423.090	
			<63	M-1	0.063	14.824	N	1367.990	1353.166	
			<63	M-2	0.063	14.380	N	1303.100	1288.720	
			<63	SEM	0.016	14.368	N	333.390	319.022	
			<63	CHLA	0.031		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	4	4	63-500	POC-1	0.125	141.160	S	167.780	26.620	25.417
			63-500	C13-1	0.188	141.570	S	180.950	39.380	
			63-500	M-1	0.250	14.627	N	63.108	48.481	
			63-500	M-2	0.125	14.502	N	41.440	26.938	
			63-500	SEM	0.063	14.502	N	28.330	13.828	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS1-2	4	4	<63	POC-1	0.063	154.180	S	372.650	218.470	427.090
			<63	C13-1	0.063	164.440	S	384.490	220.050	
			<63	M-1	0.063	14.990	N	227.530	212.540	
			<63	M-2	0.063	14.646	N	233.150	218.504	
			<63	SEM	0.016	14.897	N	69.236	54.339	
			<63	CHLA	0.031		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	5	5	63-500	POC-1	0.125	156.790	S	165.170	8.380	8.679
			63-500	C13-1	0.188	202.920	S	214.250	11.330	
			63-500	M-1	0.250	13.705	N	33.829	20.124	
			63-500	M-2	0.125	14.412	N	23.831	9.419	
			63-500	SEM	0.063	14.511	N	18.271	3.760	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS1-2	5	5	<63	POC-1	0.063	151.330	S	303.510	152.180	246.057
			<63	POC-2	0.03125	185.04	S	253.58	68.540	
			<63	C13-1	0.063	202.360	S	347.750	145.390	
			<63	M-1	0.063	14.037	N	164.228	150.191	
			<63	M-2	0.063	13.623	N	136.880	123.257	
			<63	M-3	0.25	15.308	N	379.49	364.182	
			<63	M-4	0.1875	14.782	N	447.41	432.628	
			<63	SEM	0.016	13.601	N	48.838	35.237	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	6	6	63-500	POC-1	0.125	185.760	S	188.950	3.190	3.093
			63-500	C13-1	0.188	177.090	S	182.120	5.030	
			63-500	M-1	0.250	13.637	N	19.655	6.018	
			63-500	M-2	0.125	14.427	N	17.313	2.886	
			63-500	SEM	0.063	15.380	N	17.148	1.768	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS1-2	6	6	<63	POC-1	0.125	203.910	S	213.970	10.060	10.628
			<63	C13-1	0.125	160.930	S	175.910	14.980	
			<63	M-1	0.250	14.803	N	34.489	19.686	
			<63	M-2	0.125	12.853	N	22.438	9.585	
			<63	SEM	0.063	15.753	N	20.948	5.195	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	7	7	63-500	POC-1	0.125	196.490	S	198.560	2.070	1.105
			63-500	C13-1	0.188	168.890	S	169.000	0.110	
			63-500	M-1	0.250	14.259	N	16.820	2.561	
			63-500	M-2	0.125	13.833	N	15.164	1.331	
			63-500	SEM	0.063	13.512	N	14.189	0.677	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS1-2	7	7	<63	POC-1	0.125	196.580	S	219.570	22.990	20.804
			<63	C13-1	0.188	155.980	S	188.510	32.530	
			<63	M-1	0.250	15.483	N	53.014	37.531	
			<63	M-2	0.125	14.562	N	37.674	23.112	
			<63	SEM	0.063	14.220	N	25.128	10.908	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	8	8	63-500	POC-1	0.250	187.180	S	188.080	0.900	0.443
			63-500	C13-1	0.250	147.370	S	148.230	0.860	
			63-500	M-1	0.250	14.587	N	15.492	0.905	
			63-500	SEM	0.063	13.244	N	13.512	0.268	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS1-2	8	8	<63	POC-1	0.125	184.190	S	195.690	11.500	11.018
			<63	C13-1	0.188	143.110	S	156.080	12.970	
			<63	M-1	0.250	14.410	N	38.506	24.096	
			<63	M-2	0.125	14.650	N	27.469	12.819	
			<63	SEM	0.063	14.862	N	20.772	5.910	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	9	9	63-500	POC-1	0.250	138.160	S	139.680	1.520	0.760
			63-500	C13-1	0.250	139.600	S	141.280	1.680	
			63-500	M-1	0.250	13.076	N	14.515	1.439	
			63-500	SEM	0.063	13.243	N	13.632	0.389	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS1-2	9	9	<63	POC-1	0.125	165.940	S	169.300	3.360	3.290
			<63	C13-1	0.188	189.140	S	194.090	4.950	
			<63	M-1	0.250	14.421	N	21.578	7.157	
			<63	M-2	0.125	14.620	N	17.896	3.276	
			<63	SEM	0.063	13.190	N	14.541	1.351	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	10	10	63-500	POC-1	0.125	186.740	S	187.760	1.020	0.669
			63-500	C13-1	0.250	187.570	S	189.220	1.650	
			63-500	M-1	0.250	14.327	N	15.245	0.918	
			63-500	M-2	0.125	15.415	N	15.965	0.550	
			63-500	SEM	0.063	12.801	N	13.091	0.290	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS1-2	10	10	<63	POC-1	0.125	147.350	S	158.440	11.090	10.298
			<63	C13-1	0.188	177.620	S	193.910	16.290	
			<63	M-1	0.250	13.387	N	33.556	20.169	
			<63	M-2	0.125	12.969	N	22.981	10.012	
			<63	SEM	0.063	14.701	N	20.038	5.337	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	11	11	63-500	POC-1	0.125	185.600	S	186.870	1.270	1.084
			63-500	C13-1	0.250	184.180	S	186.390	2.210	
			63-500	M-1	0.250	12.968	N	14.974	2.006	
			63-500	M-2	0.125	13.293	N	14.436	1.143	
			63-500	SEM	0.063	14.420	N	14.964	0.544	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS1-2	11	11	<63	POC-1	0.125	143.140	S	159.460	16.320	14.802
			<63	C13-1	0.188	145.950	S	169.640	23.690	
			<63	M-1	0.250	13.031	N	42.380	29.349	
			<63	M-2	0.125	13.420	N	26.775	13.355	
			<63	SEM	0.063	13.569	N	21.263	7.694	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	12	12	63-500	POC-1	0.250	194.230	S	195.260	1.030	0.361
			63-500	C13-1	0.250	174.850	S	175.450	0.600	
			63-500	M-1	0.250	14.735	N	15.325	0.590	
			63-500	SEM	0.188	14.295	N	14.828	0.533	
			63-500	LM	0.063					
SS1-2	12	12	<63	POC-1	0.125	145.470	S	157.440	11.970	12.046
			<63	C13-1	0.188	200.850	S	220.110	19.260	
			<63	M-1	0.250	14.836	N	38.614	23.778	
			<63	M-2	0.125	15.728	N	27.922	12.194	
			<63	SEM	0.047	14.567	N	19.412	4.845	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS1-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS1-2	13	13	63-500	POC-1	0.125	194.220	S	195.030	0.810	0.815
			63-500	C13-1	0.250	146.420	S	147.720	1.300	
			63-500	M-1	0.250	13.227	N	14.345	1.118	
			63-500	M-2	0.125	13.134	N	13.787	0.653	
			63-500	SEM	0.063	14.585	N	14.960	0.375	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS1-2	13	13	<63	POC-1	0.125	175.000	S	179.520	4.520	5.129
			<63	C13-1	0.188	179.580	S	186.940	7.360	
			<63	M-1	0.250	14.628	N	21.739	7.111	
			<63	M-2	0.125	15.204	N	18.800	3.596	
			<63	SEM	0.063	13.985	N	16.128	2.143	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS2-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	1	1	63-500	POC-1	0.125	173.870	S	176.520	2.650	43.978
			63-500	C13-1	0.125	177.440	S	180.680	3.240	
			63-500	M-1	0.250	15.763	N	21.049	5.286	
			63-500	M-2	0.250	14.304	N	19.615	5.311	
			63-500	SEM	0.031	15.035	N	16.139	1.104	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.141		GFF			
			63-500	LM	0.016					
SS2-2	1	1	<63	POC-1	0.125	184.190	S	214.540	30.350	454.319
			<63	C13-1	0.125	183.560	S	214.010	30.450	
			<63	M-1	0.250	14.444	N	74.842	60.398	
			<63	M-2	0.250	14.325	N	74.502	60.177	
			<63	SEM	0.047	14.197	N	18.184	3.987	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS2–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	2	2	63-500	POC-1	0.125	182.780	S	187.070	4.290	68.159
			63-500	C13-1	0.125	178.230	S	183.400	5.170	
			63-500	M-1	0.250	14.657	N	22.858	8.201	
			63-500	M-2	0.250	14.723	N	23.108	8.385	
			63-500	SEM	0.047	15.028	N	16.791	1.763	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.016					
SS2-2	2	2	<63	POC-1	0.125	173.190	S	190.820	17.630	247.221
			<63	C13-1	0.125	186.730	S	203.930	17.200	
			<63	M-1	0.250	15.589	N	44.574	28.985	
			<63	M-2	0.250	15.334	N	46.121	30.787	
			<63	SEM	0.047	15.224	N	21.488	6.264	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS2-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	3	3	63-500	POC-1	0.125	172.540	S	178.270	5.730	96.223
			63-500	C13-1	0.125	167.300	S	172.660	5.360	
			63-500	M-1	0.250	13.690	N	24.407	10.717	
			63-500	M-2	0.250	14.565	N	24.360	9.795	
			63-500	SEM	0.047	15.276	N	22.933	7.657	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.016					
SS2-2	3	3	<63	POC-1	0.125	178.740	S	238.690	59.950	872.291
			<63	POC-2	0.125	176.760	S	232.53	55.770	
			<63	C13-1	0.125	176.930	S	233.730	56.800	
			<63	M-1	0.125	15.010	N	69.665	54.655	
			<63	M-2	0.125	14.747	N	67.734	52.987	
			<63	M-3	0.125	15.042	N	69.928	54.886	
			<63	SEM	0.016	15.369	N	22.259	6.890	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.156		GFF			
			<63	LM	0.016					

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APPENDIX B – SECOND DEPLOYMENT
STATION SS2-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	4	4	63-500	POC-1	0.188	174.610	S	176.760	2.150	23.616
			63-500	C13-1	0.125	166.920	S	168.840	1.920	
			63-500	M-1	0.250	14.445	N	17.165	2.720	
			63-500	SEM	0.125	15.138	N	16.661	1.523	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS2-2	4	4	<63	POC-1	0.125	178.850	S	185.130	6.280	76.956
			<63	C13-1	0.125	186.480	S	192.360	5.880	
			<63	M-1	0.250	14.391	N	23.130	8.739	
			<63	M-2	0.250	13.757	N	22.473	8.716	
			<63	SEM	0.047	14.854	N	16.637	1.783	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS2-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	5	5	63-500	POC-1	0.125	185.630	S	188.230	2.600	24.147
			63-500	C13-1	0.125	183.010	S	185.170	2.160	
			63-500	M-1	0.125	15.159	N	16.086	0.927	
			63-500	M-2	0.125	14.708	N	15.752	1.044	
			63-500	SEM	0.125	14.347	N	15.343	0.996	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.125					
SS2-2	5	5	<63	POC-1	0.250	180.950	S	184.630	3.680	28.117
			<63	C13-1	0.125	176.090	S	178.990	2.900	
			<63	M-1	0.250	14.465	N	17.259	2.794	
			<63	SEM	0.125	14.650	N	16.073	1.423	
			<63	CHLA	0.125		GFF			
			<63	LM	0.125					

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APPENDIX B – SECOND DEPLOYMENT
STATION SS2–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	6	6	63-500	POC-1	0.250	169.600	S	170.620	1.020	6.003
			63-500	M-1	0.250	14.616	N	15.009	0.393	
			63-500	SEM	0.125	15.702	N	16.210	0.508	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.125					
SS2-2	6	6	<63	POC-1	0.125	165.530	S	167.870	2.340	38.549
			<63	C13-1	0.125	159.660	S	164.110	4.450	
			<63	M-1	0.125	14.682	N	16.415	1.733	
			<63	M-2	0.125	15.181	N	16.812	1.631	
			<63	SEM	0.063	14.547	N	15.495	0.948	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.125					

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APPENDIX B – SECOND DEPLOYMENT
STATION SS2-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	7	7	63-500	POC-1	0.250	173.090	S	174.340	1.250	6.709
			63-500	M-1	0.250	15.716	N	16.279	0.563	
			63-500	SEM	0.125	14.566	N	14.900	0.334	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.125					
SS2-2	7	7	<63	POC-1	0.250	185.500	S	190.370	4.870	35.091
			<63	C13-1	0.250	173.020	S	177.610	4.590	
			<63	M-1	0.250	15.034	N	19.064	4.030	
			<63	SEM	0.047	15.224	N	16.051	0.827	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.016					

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APPENDIX B – SECOND DEPLOYMENT
STATION SS2-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	8	8	63-500	POC-1	0.125	174.130	S	174.890	0.760	10.241
			63-500	C13-1	0.250	182.870	S	184.700	1.830	
			63-500	M-1	0.250	13.633	N	14.395	0.762	
			63-500	SEM	0.063	14.870	N	15.123	0.253	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.188		GFF			
			63-500	LM	0.063					
SS2-2	8	8	<63	POC-1	0.125	180.760	S	182.850	2.090	32.026
			<63	C13-1	0.250	180.980	S	185.720	4.740	
			<63	M-1	0.250	15.635	N	19.164	3.529	
			<63	SEM	0.063	15.117	N	16.031	0.914	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS2-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS2-2	9	9	<63	POC-1	0.125	187.510	S	189.110	1.600	38.045
			<63	C13-1	0.250	185.070	S	189.980	4.910	
			<63	M-1	0.250	14.438	N	18.984	4.546	
			<63	SEM	0.063	14.320	N	16.656	2.336	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.063					
SS2-2	10	10	63-500	POC-1	0.500	196.330	S	197.600	1.270	3.906
			63-500	M-1	0.500	15.177	N	15.907	0.730	
SS2-2	10	10	<63	POC-1	0.125	186.120	S	188.160	2.040	27.581
			<63	C13-1	0.125	186.660	S	188.540	1.880	
			<63	M-1	0.250	14.824	N	18.145	3.321	
			<63	SEM	0.125	13.853	N	15.438	1.585	
			<63	CHLA	0.125		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.125					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	1	1	63-500	POC-1	0.125	173.960	S	193.880	19.920	20.096
			63-500	C13-1	0.125	174.680	S	201.480	26.800	
			63-500	M-1	0.250	14.366	N	51.914	37.548	
			63-500	M-2	0.125	15.642	N	34.096	18.454	
			63-500	SEM	0.063	14.477	N	24.270	9.793	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.188		GFF			
			63-500	LM	0.063					
SS3-2	1	1	<63	POC-1	0.125	180.690	S	217.850	37.160	32.578
			<63	C13-1	0.125	175.420	S	210.240	34.820	
			<63	M-1	0.250	14.347	N	70.676	56.329	
			<63	M-2	0.188	14.937	N	66.022	51.085	
			<63	SEM	0.047	15.189	N	30.636	15.447	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	2	2	63-500	POC-1	0.125	172.460	S	192.070	19.610	17.025
			63-500	POC-2	0.063	183.070	S	191.190	8.120	
			63-500	C13-1	0.125	178.440	S	197.710	19.270	
			63-500	M-1	0.125	14.863	N	32.629	17.766	
			63-500	M-2	0.125	14.558	N	31.046	16.488	
			63-500	SEM	0.063	15.179	N	20.580	5.401	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.250		GFF			
			63-500	LM	0.063					
SS3-2	2	2	<63	POC-1	0.125	190.630	S	222.850	32.220	23.607
			<63	C13-1	0.125	182.970	S	212.510	29.540	
			<63	C13-2	0.219	164.880	S	212.900	48.020	
			<63	M-1	0.125	13.717	N	24.436	10.719	
			<63	M-2	0.125	14.548	N	31.911	17.363	
			<63	SEM	0.016	15.679	N	19.003	3.324	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	3	3	63-500	POC-1	0.125	165.990	S	184.310	18.320	19.364
			63-500	C13-1	0.125	169.310	S	188.610	19.300	
			63-500	M-1	0.250	14.872	N	55.790	40.918	
			63-500	M-2	0.125	14.199	N	33.217	19.018	
			63-500	SEM	0.063	14.203	N	25.067	10.864	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.188		GFF			
			63-500	LM	0.063					
SS3-2	3	3	<63	POC-1	0.063	168.480	S	302.450	133.970	262.800
			<63	POC-2	0.031	180.030	S	254.250	74.220	
			<63	C13-1	0.063	173.230	S	308.370	135.140	
			<63	M-1	0.125	14.071	N	279.512	265.441	
			<63	M-2	0.125	14.111	N	279.775	265.664	
			<63	M-3	0.063	14.671	N	148.190	133.519	
			<63	M-4	0.063	15.645	N	147.300	131.655	
			<63	M-5	0.188	14.701	N	412.460	397.759	
			<63	SEM	0.016	15.102	N	49.473	34.371	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	4	4	63-500	POC-1	0.125	195.970	S	214.180	18.210	17.829
			63-500	C13-1	0.125	198.740	S	217.020	18.280	
			63-500	C13-2	0.125	167.190	S	185.69	18.500	
			63-500	M-1	0.250	15.434	N	51.940	36.506	
			63-500	M-2	0.125	15.215	N	33.179	17.964	
			63-500	SEM	0.047	13.890	N	20.134	6.244	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.016					
SS3-2	4	4	<63	POC-1	0.063	176.330	S	254.560	78.230	149.919
			<63	POC-2	0.031	168.100	S	207.22	39.120	
			<63	C13-1	0.063	183.650	S	261.860	78.210	
			<63	C13-2	0.125	193.900	S	350.55	156.650	
			<63	M-1	0.063	14.529	N	91.456	76.927	
			<63	M-2	0.063	14.828	N	90.245	75.417	
			<63	M-3	0.063	14.748	N	89.246	74.498	
			<63	M-4	0.250	14.926	N	313.27	298.344	
			<63	SEM	0.016	15.140	N	34.371	19.231	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	5	5	63-500	POC-1	0.125	173.450	S	176.480	3.030	2.625
			63-500	C13-1	0.125	186.950	S	189.500	2.550	
			63-500	M-1	0.250	14.172	N	18.821	4.649	
			63-500	M-2	0.250	14.456	N	19.969	5.513	
			63-500	SEM	0.063	15.008	N	16.638	1.630	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS3-2	5	5	<63	POC-1	0.125	168.040	S	173.780	5.740	4.899
			<63	C13-1	0.125	180.220	S	187.170	6.950	
			<63	M-1	0.250	14.768	N	23.091	8.323	
			<63	M-2	0.125	14.184	N	18.359	4.175	
			<63	SEM	0.063	15.330	N	17.572	2.242	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	6	6	63-500	POC-1	0.063	177.470	S	178.960	1.490	3.000
			63-500	C13-1	0.125	183.000	S	186.460	3.460	
			63-500	M-1	0.250	14.878	N	21.117	6.239	
			63-500	M-2	0.125	14.993	N	17.812	2.819	
			63-500	SEM	0.125	14.649	N	17.440	2.791	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.188		GFF			
			63-500	LM	0.063					
SS3-2	6	6	<63	POC-1	0.125	182.120	S	202.960	20.840	18.713
			<63	C13-1	0.125	201.120	S	223.370	22.250	
			<63	M-1	0.250	14.968	N	47.747	32.779	
			<63	M-2	0.188	14.819	N	43.203	28.384	
			<63	SEM	0.047	14.824	N	22.489	7.665	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	7	7	63-500	POC-1	0.125	177.420	S	179.370	1.950	1.293
			63-500	C13-1	0.125	163.090	S	164.760	1.670	
			63-500	M-1	0.250	15.081	N	16.796	1.715	
			63-500	M-2	0.125	15.021	N	16.055	1.034	
			63-500	SEM	0.063	14.451	N	15.321	0.870	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.188		GFF			
			63-500	LM	0.063					
SS3-2	7	7	<63	POC-1	0.125	143.300	S	146.340	3.040	2.508
			<63	C13-1	0.125	189.300	S	192.470	3.170	
			<63	M-1	0.250	14.960	N	19.254	4.294	
			<63	M-2	0.125	15.050	N	17.289	2.239	
			<63	SEM	0.063	14.461	N	15.759	1.298	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	8	8	63-500	POC-1	0.125	177.080	S	178.920	1.840	1.578
			63-500	C13-1	0.125	181.420	S	183.330	1.910	
			63-500	M-1	0.250	15.208	N	18.003	2.795	
			63-500	M-2	0.125	15.428	N	17.040	1.612	
			63-500	SEM	0.063	13.833	N	14.513	0.680	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.188		GFF			
			63-500	LM	0.063					
SS3-2	8	8	<63	POC-1	0.125	164.600	S	169.840	5.240	4.553
			<63	C13-1	0.125	144.490	S	149.790	5.300	
			<63	M-1	0.250	12.819	N	21.060	8.241	
			<63	M-2	0.125	14.970	N	19.282	4.312	
			<63	SEM	0.063	14.476	N	16.876	2.400	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	9	9	63-500	POC-1	0.125	184.520	S	186.840	2.320	2.157
			63-500	C13-1	0.125	177.430	S	181.080	3.650	
			63-500	M-1	0.250	13.604	N	17.516	3.912	
			63-500	M-2	0.188	12.966	N	15.369	2.403	
			63-500	SEM	0.063	12.927	N	13.820	0.893	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS3-2	9	9	<63	POC-1	0.125	168.210	S	187.360	19.150	17.556
			<63	C13-1	0.125	211.160	S	230.310	19.150	
			<63	M-1	0.250	13.447	N	47.625	34.178	
			<63	M-2	0.125	14.344	N	31.876	17.532	
			<63	SEM	0.063	12.993	N	21.278	8.285	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.188		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	10	10	63-500	POC-1	0.125	210.560	S	211.430	0.870	0.689
			63-500	C13-1	0.125	196.100	S	197.280	1.180	
			63-500	M-1	0.125	12.824	N	13.272	0.448	
			63-500	M-2	0.125	14.491	N	15.035	0.544	
			63-500	SEM	0.125	13.184	N	13.647	0.463	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.125					
SS3-2	10	10	<63	POC-1	0.125	143.360	S	147.000	3.640	3.128
			<63	C13-1	0.188	190.080	S	195.810	5.730	
			<63	M-1	0.250	14.545	N	20.124	5.579	
			<63	M-2	0.125	15.117	N	17.750	2.633	
			<63	SEM	0.063	13.299	N	14.821	1.522	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	11	11	63-500	POC-1	0.125	164.420	S	165.450	1.030	0.841
			63-500	C13-1	0.250	165.100	S	166.920	1.820	
			63-500	M-1	0.250	13.259	N	14.805	1.546	
			63-500	M-2	0.125	14.212	N	14.939	0.727	
			63-500	SEM	0.063	12.957	N	13.402	0.445	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS3-2	11	11	<63	POC-1	0.125	210.020	S	224.160	14.140	12.061
			<63	C13-1	0.188	151.510	S	170.800	19.290	
			<63	M-1	0.250	15.472	N	36.614	21.142	
			<63	M-2	0.125	15.021	N	27.631	12.610	
			<63	SEM	0.063	14.856	N	21.343	6.487	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	12	12	63-500	POC-1	0.125	137.400	S	138.910	1.510	1.727
			63-500	C13-1	0.250	165.790	S	169.470	3.680	
			63-500	M-1	0.250	13.104	N	16.270	3.166	
			63-500	M-2	0.125	14.369	N	16.680	2.311	
			63-500	SEM	0.063	13.142	N	13.904	0.762	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.109		GFF			
			63-500	LM	0.016					
SS3-2	12	12	<63	POC-1	0.125	143.640	S	162.690	19.050	16.911
			<63	C13-1	0.188	198.010	S	225.430	27.420	
			<63	M-1	0.250	13.028	N	45.041	32.013	
			<63	M-2	0.125	13.707	N	30.375	16.668	
			<63	SEM	0.063	13.934	N	22.077	8.143	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS3–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS3-2	13	13	63-500	POC-1	0.125	145.200	S	147.140	1.940	2.695
			63-500	C13-1	0.250	212.280	S	217.400	5.120	
			63-500	M-1	0.250	13.010	N	16.914	3.904	
			63-500	M-2	0.125	13.053	N	15.013	1.960	
			63-500	SEM	0.031	14.288	N	14.868	0.580	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.031					
SS3-2	13	13	<63	POC-1	0.125	190.070	S	220.790	30.720	35.760
			<63	C13-1	0.188	165.630	S	209.280	43.650	
			<63	M-1	0.250	14.555	N	70.190	55.635	
			<63	M-2	0.125	14.592	N	41.653	27.061	
			<63	SEM	0.063	14.110	N	29.050	14.940	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	1	1	63-500	POC-1	0.125	176.490	S	185.160	8.670	148.143
			63-500	C13-1	0.125	175.120	S	184.030	8.910	
			63-500	M-1	0.188	15.487	N	30.823	15.336	
			63-500	M-2	0.25	14.577	N	33.911	19.334	
			63-500	SEM	0.063	14.448	N	19.085	4.637	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS4-2	1	1	<63	POC-1	0.125	180.680	S	203.340	22.660	327.531
			<63	C13-1	0.125	181.370	S	204.550	23.180	
			<63	M-1	0.250	15.332	N	55.630	40.298	
			<63	M-2	0.250	15.439	N	55.533	40.094	
			<63	SEM	0.063	14.945	N	24.966	10.021	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.063		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	2	2	63-500	POC-1	0.125	159.220	S	163.490	4.270	73.367
			63-500	C13-1	0.125	168.300	S	172.940	4.640	
			63-500	M-1	0.188	15.222	N	21.663	6.441	
			63-500	M-2	0.250	14.637	N	24.762	10.125	
			63-500	SEM	0.063	14.600	N	17.297	2.697	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS4-2	2	2	<63	POC-1	0.125	176.320	S	190.010	13.690	184.167
			<63	C13-1	0.125	176.100	S	190.240	14.140	
			<63	M-1	0.188	15.096	N	30.870	15.774	
			<63	M-2	0.250	15.392	N	36.361	20.969	
			<63	SEM	0.063	14.054	N	20.201	6.147	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	3	3	63-500	POC-1	0.125	186.730	S	191.730	5.000	80.805
			63-500	C13-1	0.125	168.130	S	173.010	4.880	
			63-500	M-1	0.250	14.255	N	24.327	10.072	
			63-500	M-2	0.250	15.385	N	26.939	11.554	
			63-500	SEM	0.063	15.053	N	17.162	2.109	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.063					
SS4-2	3	3	<63	POC-1	0.125	178.860	S	208.530	29.670	453.362
			<63	C13-1	0.125	147.030	S	180.370	33.340	
			<63	M-1	0.188	15.433	N	54.595	39.162	
			<63	M-2	0.250	14.224	N	73.084	58.860	
			<63	SEM	0.063	15.095	N	28.154	13.059	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.063					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	4	4	63-500	POC-1	0.125	178.920	S	181.770	2.850	37.265
			63-500	C13-1	0.125	178.080	S	180.780	2.700	
			63-500	M-1	0.250	14.723	N	18.914	4.191	
			63-500	M-2	0.250	14.898	N	19.311	4.413	
			63-500	SEM	0.031	15.340	N	16.092	0.752	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.031					
SS4-2	4	4	<63	POC-1	0.125	174.900	S	206.410	31.510	409.960
			<63	C13-1	0.125	185.680	S	214.380	28.700	
			<63	M-1	0.250	14.982	N	62.285	47.303	
			<63	M-2	0.250	14.381	N	65.290	50.909	
			<63	SEM	0.031	14.655	N	20.217	5.562	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.031					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	5	5	63-500	POC-1	0.125	177.200	S	178.900	1.700	24.105
			63-500	C13-1	0.125	176.540	S	178.250	1.710	
			63-500	M-1	0.250	14.754	N	17.612	2.858	
			63-500	M-2	0.250	15.115	N	18.039	2.924	
			63-500	SEM	0.031	14.999	N	15.449	0.450	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.031					
SS4-2	5	5	<63	POC-1	0.125	175.800	S	195.800	20.000	306.235
			<63	C13-1	0.125	179.780	S	201.690	21.910	
			<63	M-1	0.250	15.580	N	54.608	39.028	
			<63	M-2	0.250	14.320	N	51.436	37.116	
			<63	SEM	0.031	14.933	N	19.373	4.440	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.031					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	6	6	63-500	POC-1	0.125	176.740	S	178.090	1.350	20.420
			63-500	C13-1	0.125	147.090	S	148.560	1.470	
			63-500	M-1	0.250	14.822	N	17.090	2.268	
			63-500	M-2	0.125	15.067	N	16.464	1.397	
			63-500	SEM	0.063	13.650	N	14.353	0.703	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS4-2	6	6	<63	POC-1	0.125	180.710	S	199.210	18.500	267.705
			<63	C13-1	0.125	173.170	S	189.630	16.460	
			<63	M-1	0.250	14.839	N	49.435	34.596	
			<63	M-2	0.250	14.729	N	47.907	33.178	
			<63	SEM	0.031	13.533	N	17.881	4.348	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.031					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	7	7	63-500	POC-1	0.125	180.700	S	183.600	2.900	46.728
			63-500	C13-1	0.125	175.170	S	179.210	4.040	
			63-500	M-1	0.250	14.544	N	19.298	4.754	
			63-500	M-2	0.250	15.012	N	20.718	5.706	
			63-500	SEM	0.031	14.346	N	15.637	1.291	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.031					
SS4-2	7	7	<63	POC-1	0.125	177.200	S	196.150	18.950	210.570
			<63	C13-1	0.125	176.480	S	194.580	18.100	
			<63	M-1	0.250	14.223	N	36.040	21.817	
			<63	M-2	0.250	15.169	N	37.550	22.381	
			<63	SEM	0.031	14.422	N	17.402	2.980	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.031					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	8	8	63-500	POC-1	0.125	178.150	S	180.840	2.690	34.275
			63-500	C13-1	0.125	179.130	S	181.210	2.080	
			63-500	M-1	0.250	15.138	N	19.681	4.543	
			63-500	M-2	0.250	14.835	N	18.607	3.772	
			63-500	SEM	0.031	15.412	N	16.037	0.625	
			63-500	CHLA	0.063		GFF			
			63-500	PIGMENT	0.063		GFF			
			63-500	LM	0.031					
SS4-2	8	8	<63	POC-1	0.125	176.980	S	191.280	14.300	172.998
			<63	C13-1	0.125	178.760	S	193.530	14.770	
			<63	M-1	0.250	15.491	N	35.562	20.071	
			<63	M-2	0.250	14.921	N	33.377	18.456	
			<63	SEM	0.125	14.847	N	24.753	9.906	
			<63	CHLA	0.047		GFF			
			<63	PIGMENT	0.063		GFF			
			<63	LM	0.016					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	9	9	63-500	POC-1	0.125	175.280	S	176.260	0.980	13.159
			63-500	C13-1	0.125	176.900	S	178.080	1.180	
			63-500	M-1	0.125	14.300	N	15.063	0.763	
			63-500	M-2	0.125	15.141	N	15.880	0.739	
			63-500	SEM	0.125	14.577	N	15.126	0.549	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.125					
SS4-2	9	9	<63	POC-1	0.125	177.470	S	184.990	7.520	79.548
			<63	C13-1	0.125	179.720	S	186.430	6.710	
			<63	M-1	0.250	14.135	N	22.611	8.476	
			<63	M-2	0.250	14.661	N	22.611	7.950	
			<63	SEM	0.031	14.761	N	15.924	1.163	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.031					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

APPENDIX B – SECOND DEPLOYMENT
STATION SS4–2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	SAMPLE TYPE	FRACTION OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	FLUX (mg/m2/day)
SS4-2	10	10	63-500	POC-1	0.250	175.300	S	177.800	2.500	13.369
			63-500	C13-1	0.125	175.660	S	176.460	0.800	
			63-500	M-1	0.250	14.450	N	15.513	1.063	
			63-500	SEM	0.063	14.333	N	14.676	0.343	
			63-500	CHLA	0.125		GFF			
			63-500	PIGMENT	0.125		GFF			
			63-500	LM	0.063					
SS4-2	10	10	<63	POC-1	0.125	176.070	S	183.190	7.120	89.292
			<63	C13-1	0.125	172.460	S	180.370	7.910	
			<63	M-1	0.250	14.537	N	24.143	9.606	
			<63	M-2	0.250	14.794	N	24.406	9.612	
			<63	SEM	0.031	15.266	N	16.735	1.469	
			<63	CHLA	0.063		GFF			
			<63	PIGMENT	0.125		GFF			
			<63	LM	0.031					

See first page of APPENDIX B for explanations of calculation, symbols and notes.

7 Appendix C

SEQUENTIAL SEDIMENT TRAP - SPLITTING INFORMATION AND FLUX CALCULATIONS >500 μm FRACTION, SECOND DEPLOYMENT.

For definitions and abbreviations see first page(s) of APPENDIX B.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS1-2	1	1	>500	ALL	POC/PON	0.313	43.210	18.185	Zooplankton not removed, badly decomposed, dark green to black, fecal pellets observed, very strong odor, split July 11/88.
					METAL	0.313	52.533		
					SEM	0.063	6.074		
					CHLa	0.250			
					PHYTO	0.063			
SS1-2	2	2	>500	ALGAE	POC/PON	0.313	28.200	9.964	Green, brown colour, strong odor, filamentous and clumping together, fecal pellets observed, small amount of debris.
					METAL	0.313	24.256		
					SEM	0.063	3.330		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON		1.000	69.120	8.487	
SS1-2	3	3	>500	ALL	POC/PON	0.313	7.400	3.332	Algae not filamentous, lots of debris, some fine and some coarse particles, pale yellow-green colour.
					METAL	0.313	9.801		
					SEM	0.063	1.453		
					CHLa	0.250			
					PHYTO	0.063			
SS1-2	4	4	>500	ALGAE	POC/PON	0.313	34.920	12.555	Green-black in color, strong odor, debris, not much clumping and filamentous, fecal pellets, some algae left in container - stuck to wall.
					METAL	0.313	28.909		
					SEM	0.063	6.464		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON		1.000	53.840	6.611	

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS1-2	5	5	>500	ALGAE	POC/PON	0.313	44.600	17.731	Very filamentous,clumping together, no debris, greenish-brown colour.
					METAL	0.313	49.013		
					SEM	0.063	5.664		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON		1.000	196.980	24.187	
SS1-2	6	6	>500	ALGAE	POC/PON	0.750	1.200	0.196	Algae - filamentous, pale green-yellow colour.
					CHLa	0.250			
				ZOOPLANKTON (one amphipod)					
SS1-2	7	7	>500	ALGAE	POC/PON	0.750	0.130	0.021	Algae very fine, very little debris.
					CHLa	0.250			
SS1-2	8	8	>500	ALGAE	POC/PON	0.750	1.000	0.164	Pale green-yellow algae in clumps, lots of debris (empty carapaces).
					CHLa	0.250			
				ZOOPLANKTON		1.000	5.660	0.695	
SS1-2	9	9	>500	ALGAE (in clumps)		0.375	1.830	0.429	Algae pale yellow-green colour, small amount of debris (carapaces) in sample, algae in clumps, not filamentous.
				ALGAE (filamentous)		0.375	0.790		
					CHLa	0.250			
SS1-2	10	10	>500	ALGAE	POC/PON	1.000	3.990	0.490	Sample separated after being frozen.
				ZOOPLANKTON		1.000	308.450	37.875	

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS1-2	11	11	>500	ALGAE	POC/PON	0.750	3.120	0.511	Lots of debris, many orange coloured things, not much algae.
					CHLa	0.250			
				ZOOPLANKTON		1.000	13.350	1.639	
SS1-2	12	12	>500	ALGAE	POC/PON	0.750	3.800	0.622	Lots of debris (carapaces), algae pale green-yellow, a few small clumps, most very small clumps, single cells.
					CHLa	0.250			
				ZOOPLANKTON		1.000	449.450	55.188	
SS1-2	13	13	>500	ALGAE	POC/PON	0.750	6.550	1.358	Lots of debris, small clumps of algae, pale green colour.
					CHLa	0.250			
				ZOOPLANKTON		1.000	523.590	81.446	

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS2-2	1	1	>500	ALGAE	POC/PON	0.313	1.880	12.412	Algae both filamentous and clumping, filaments break up relatively easily, some fecal pellets, some debris.
					METAL	0.313	2.236		
					SEM	0.063	0.253		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON		1.000	40.680	79.453	
SS2-2	2	2	>500	ALGAE	POC/PON	0.313	4.620	25.176	Algae very filamentous and clumping together, pale green-yellow colour, small amount of debris
					METAL	0.313	3.783		
					SEM	0.063	0.459		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON		1.000	84.130	164.316	
SS2-2	3	3	>500	ALGAE	FROZEN	1.000	23.580	46.055	Approximately 1/3 algae, 1/3 granular substance (probably pteropods), and 1/3 zooplankton debris. - rough guesstimate, sample sorted after being frozen, (Sharon's record shows this sample too??? - not shown here)
				ZOOPLANKTON		1.000	126.750	247.559	
SS2-2	4	4	>500	ALGAE	POC/PON	0.750	4.370	11.380	Very filamentous, pale green-yellow colour, very little to no debris.
					CHLa	0.250			
				ZOOPLANKTON		1.000	72.660	141.914	

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS2-2	5	5	>500	ALGAE	FROZEN	1.000	5.870	11.465	Good separation of algae, very little debris present visually, separated after frezzing.
				ZOOPLANKTON		1.000	42.300	82.617	
SS2-2	6	6	>500	ALGAE	POC/PON	0.750	1.670	4.349	Filamentous algae clumped together, pale green color.
					CHLa	0.250			
				ZOOPLANKTON		1.000	29.720	58.047	
SS2-2	7	7	>500	ALGAE	POC/PON	0.750	2.440	6.354	Small clumps of algae, lots of debris, algae is pale yellow colour.
					CHLa	0.250			
				ZOOPLANKTON		1.000	29.460	57.539	
SS2-2	8	8	>500	ALGAE	POC/PON	0.750	1.040	2.708	Algae is pale yellow colour, filamentous and clumps of algae, little debris.
					CHLa	0.250			
				ZOOPLANKTON		1.000	8.170	15.957	
SS2-2	9	9	>500	ALGAE	POC/PON	0.750	0.530	1.380	Filamentous algae, green-yellow color.
					CHLa	0.250			
				ZOOPLANKTON		1.000	10.950	21.387	
SS2-2	10	10	>500	ALGAE	POC/PON	0.750	0.660	1.719	Very little algae!
					CHLa	0.250			
				ZOOPLANKTON		1.000	17.670	34.512	

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS3-2	1	1	>500	ALGAE	POC/PON	0.313	29.690	11.480	Pale yellow colour, lots of debris and empty carapaces, water very oily, lots of large pellets approx. 0.7 mm – rusty red colour.
					METAL	0.313	29.676		
					SEM	0.063	4.908		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON				49.360	
					COPEPOD		5.970		
					AMPHIPOD		11.290		
					REMAINDER		384.730		
SS3-2	2	2	>500	TOTAL			1458.971	179.147	Sample dried before sorting.
SS3-2	3	3	>500	ALGAE	POC/PON	0.313	9.230	3.690	
					METAL	0.313	10.119		
					SEM	0.063	1.313		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON				29.154	Algae filamentous and clumping together, small amount of debris, greenish-brown colour.
					COPEPOD		10.070		
					AMPHIPOD		5.980		
					REMAINDER		221.380		

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS3-2	4	4	>500	ALGAE	POC/PON	0.313	15.340	5.394	Green-yellow colour, filamentous. little to no debris, fecal pellets.
					METAL	0.313	12.896		
					SEM	0.063	1.964		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON				12.581	
					COPEPOD		11.550		
					AMPHIPOD		1.900		
					REMAINDER		89.010		
SS3-2	5	5	>500	ALGAE + PTEROPODS			41.390	5.082	Sample sorted after being frozen, roughly 5% algae and 95% pteropods - small
				ZOOPLANKTON			6.550	0.804	bits of algae and debris amongst pteropods, one clump algae.
SS3-2	6	6	>500	ALGAE + PTEROPODS			16.470	2.022	Sample sorted after being frozen, estimate 80% algae and 20% pteropods
				ZOOPLANKTON			63.700	7.822	
SS3-2	7	7	>500	ALGAE	POC/PON	0.313	4.100	1.684	Greenish-yellow colour,little debris, very filamentous and clumped together, fecal pellets.
					METAL	0.313	4.687		
					SEM	0.063	0.643		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON				9.948	
					COPEPOD		4.480		
					AMPHIPOD		5.150		
					REMAINDER		71.390		

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS3-2	8	8	>500	ALGAE	POC/PON	0.750	3.410	0.419	Clumps of algae, pale green-brown colour, filamentous, lots of debris and empty carapaces.
					CHLa	0.250			
				ZOOPLANKTON				9.867	
					COPEPOD		11.880		
					AMPHIPOD		1.470		
					REMAINDER		67.010		
SS3-2	9	9	>500	ALGAE	POC/PON	0.313	2.760	0.978	Pale yellow-green colour, filamentous, small amount of debris.
					METAL	0.313	2.169		
					SEM	0.063	0.547		
					CHLa	0.250			
					PHYTO	0.063			
				ZOOPLANKTON				8.538	
					COPEPOD		12.150		
					AMPHIPOD		1.250		
					REMAINDER		56.130		
SS3-2	10	10	>500	ALGAE	POC/PON	0.750	1.190	0.146	Lots of eggs (some taken out for analysis), small amount of algae, small amount of debris.
					CHLa	0.250			
				ZOOPLANKTON				10.088	
					COPEPOD		8.720		
					AMPHIPOD		1.110		
					REMAINDER		72.330		

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS3-2	11	11	>500	ALGAE	POC/PON	0.750	0.960	0.118	Very little algae, almost all debris.
					CHLa	0.250			
				ZOOPLANKTON				13.064	
					COPEPOD		12.650		
					REMAINDER		93.740		
SS3-2	12	12	>500	ALGAE	POC/PON	0.750	7.850	0.964	Filamentous, pale green-yellow colour, small amount of debris, twig in sample.
					CHLa	0.250			
				ZOOPLANKTON				32.785	
					COPEPOD		10.360		
					REMAINDER		256.640		
SS3-2	13	13	>500	ALGAE	POC/PON	0.750	99.340	15.489	Filamentous algae, pale yellow-green colour, lots of small chunks of metal (off a boat??).
					CHLa	0.250			
				ZOOPLANKTON				63.342	
					COPEPOD		9.630		
					AMPHIPOD		1.270		
					REMAINDER		395.340		

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS4-2	1	1	>500	ALGAE			10.810	21.113	>90% algae, some zooplankton parts, sample sorted after being frozen.
				ZOOPLANKTON			32.640	63.750	
SS4-2	2	2	>500	ALGAE			23.950	46.777	Mixture of matted algae, zooplankton parts, pteropods and other debris (70% algae, 29% zooplankton debris, 1% pteropods - estimated)
				ZOOPLANKTON			28.730	56.113	
SS4-2	3	3	>500	ALGAE			19.890	38.848	Mainly algae with small pteropods embedded in it, pteropods very fragile.
				ZOOPLANKTON			42.010	82.051	
SS4-2	4	4	>500	ALGAE			10.280	20.078	
				ZOOPLANKTON			12.540	24.492	
SS4-2	5	5	>500	ALGAE			7.210	14.082	>90% algae, some debris visible but separation fairly good.
				ZOOPLANKTON			45.090	88.066	
SS4-2	6	6	>500	ALGAE			8.540	16.680	Mainly matted algae, a few fecal pellets, particulates, and fragments of zooplankton and pteropods.
				ZOOPLANKTON			36.750	71.777	

See first page of APPENDIX B for explanation of abreviations and calculations.

APPENDIX C – >500 um FRACTION, SECOND DEPLOYMENT SPLITTING INFORMATION AND FLUX CALCULATIONS

STN	SEQ #	CUP #	SIZE FRACT.	PORTION OF TOTAL	SAMPLE TYPE	FRACTION OF TOTAL	WEIGHT (mg)	FLUX (mg/m2/day)	NOTES
SS4-2	7	7	>500	ALGAE1	POC/PON	0.313	3.500	30.198	Greenish-brown colour, filaments and clumping together, no debris, small amount of fecal pellets.
					METAL	0.313	4.172		
					SEM	0.063	0.602		
					CHLa	0.250			
					PHYTO	0.063			
				ALGAE2	POC/PON	0.750	2.570		
					CHLa	0.250			
				ZOOPLANKTON		1.000	7.430	14.512	
SS4-2	8	8	>500	ALGAE			5.610	10.957	Algae + debris, 29 pteropods ranging from small to large.
				ZOOPLANKTON			17.190	33.574	
SS4-2	9	9	>500	ALGAE	POC/PON	0.750	0.570	1.953	kVery fine algae, small amount of debris, very little filamentous algae, fecal pellets?
					CHLa	0.250			
				ZOOPLANKTON			19.480	38.047	
SS4-2	10	10	>500	ALGAE			4.900	9.570	Algae + debris, 60 pteropods.
				ZOOPLANKTON			21.470	41.934	

See first page of APPENDIX B for explanation of abreviations and calculations.

8 Appendix D

SEQUENTIAL SEDIMENT TRAP - ZOOPLANKTON IDENTIFICATION TABLE (>500 μm), SECOND DEPLOYMENT

Appendix D contains the following:

- A table of Major zooplankton species
- A table of the complete species and abundance list
- Selected photographs of zooplankton

1. *Euchaeta glacialis*; Large copepod with attached egg sac (SS1-2, cup #4, X 14)
2. Unidentified isopod (SS1-2, cup #6, X 12)
3. *Calanus glacialus*; Medium sized adult male pale orange copepod (SS1-2, cup #12, X 18)
4. *Metridia longa*; Small white female adult copepod (SS1-2, cup #13, X 17)
5. *Themisto libellula*; Large amphipod (SS3-2, cup #3, X 7)
6. *Calanus hyperboreus*; Large white adult female copepod (SS3-2, cup #4, X 15)
7. *Philomides globosa*; Ostracod with tough carapace over appendages (SS3-2, cup #8, X 23)
8. *Conchoecia borealis*; Ostracod (SS3-2, cup #9, X zz)
9. *Spiratella helicina*; Pteropod with 2 size classes shown (SS3-2, cup #10, X 30)
10. *Hyperia medusarum*; Medium amphipod (SS2-2, cup #7, X 14)

APPENDIX D – NOGAP SEDIMENT TRAP SAMPLES – MAJOR ZOOPLANKTON SPECIES

Numbers of animals retained by trap and sample cup (numbers retained / day / m^2)

n/c+ = present in large numbers, but not counted
n/c- = present in small numbers, but not counted

SS1	1	2	3	4	5	6	7	8	9	10	11	12	13
Calanus hyperboreus					7.8					14.9		22.2	23.9
Calanus glacialis												2.7	
Euchaeta glacialis		36.5		8.3	9.5			0.1			n/c-	13.4	11.7
Metridia longa				2.7	31.3			6.9		60.4	10.3	25.7	143.5
Calanoid (unspeciated)	n/c+		n/c-										
Spiratella helicina			3.8										

SS2	1	2	3	4	5	6	7	8	9	10
Calanus hyperboreus	21.5	64.5	5.9	7.8						3.9
Calanus glacialis	15.6		3.9	74.2	3.9		2.0	5.9	3.9	
Euchaeta glacialis						11.7				7.8
Metridia longa	296.9	281.3	183.6	289.1	191.4	101.6	44.9	23.4	31.3	41.0
Spiratella helicina			3.9	210.9	183.6	128.9	9.8	19.5	23.4	19.5

SS3	1	2	3	4	5	6	7	8	9	10	11	12	13
Calanus hyperboreus			16.7	2.3			0.1	0.4	0.5	0.2	2.3	8.7	9.7
Calanus glacialis			0.5	2.2		0.9	0.1	1.6	1.0	0.7			
Euchaeta glacialis	82.1			2.7			0.1	0.6	1.0	2.6	8.1	12.3	29.2
Metridia longa	80.1		14.0	9.8		1.5	16.7	28.0	21.5	4.7	8.7	50.2	93.8
Calanoid (unspeciated)		n/c+			4.1								
Spiratella helicina	1.0			2.1	88.9	46.7	16.2	25.0	30.2	75.0	25.8	3.4	1.1

SS4	1	2	3	4	5	6	7	8	9	10
Calanus hyperboreus		11.7	29.3	3.9	5.9	3.9		3.9		7.8
Calanus glacialis		2.0							5.9	2.0
Metridia longa		115.2	66.4	11.7	17.6	52.7	58.6	62.5	19.5	15.6
Calanoid (unspeciated)	68.4									
Spiratella helicina			50.8	99.6	39.1	56.6	19.5	56.6	132.8	117.2

APPENDIX D – NOGAP SEDIMENT TRAP SAMPLES – COMPLETE SPECIES AND ABUNDANCE LIST

Numbers of animals retained by trap and sample cup

n/c+ = present in large numbers, but not counted
n/c- = present in small numbers, but not counted

F = adult female
M = adult male
CV = copepodite stage 5
CIV = copepodite stage 4
us. = unstaged

SS1

	Sample #:	1	2	3	4	5	6	7	8	9	10	11	12	13
Calanus hyperboreus	(F)					63					121		181	195
Calanus glacialis	(M)												22	
Euchaeta glacialis	(F)		297		68	77								
Euchaeta glacialis	(us.)								1			n/c-	109	95
Metridia longa	(F)				22	255			56		492	84	184	1147
Metridia longa	(CIV f+m)												25	22
Calanoid (unspeciated)		n/c+			n/c-									
Isopod			4			3	1				3		3	4
Hyperia medusarum											3		1	
Spiratella helicina				31										

SS2

	Sample #:	1	2	3	4	5	6	7	8	9	10
Calanus hyperboreus	(F)	11	33	3	4						2
Calanus glacialis	(M)	8		2	25						
Calanus glacialis	(CIV)				13			1	3	2	
Calanus glacialis	(us.)					2					
Euchaeta glacialis	(us.)						6				4
Metridia longa	(F)	152	144	94	148		16	10	6	9	21
Metridia longa	(CIV f+m)						36	13	6	7	
Metridia longa	(us.)					98					
Isopod			3		4	5		3	3		
Hyperia medusarum			1		1	1		1		2	
Themisto libellula				2							
Polychaete larvae					1						
Spiratella helicina				2	108	94	66	5	10	12	10

APPENDIX D – NOGAP SEDIMENT TRAP SAMPLES – COMPLETE SPECIES AND ABUNDANCE LIST

Numbers of animals retained by trap and sample cup

n/c+ = present in large numbers, but not counted
n/c- = present in small numbers, but not counted

F = adult female CV = copepodite stage 5 us. = unstaged
M = adult male CIV = copepodite stage 4

SS3

	Sample #:	1	2	3	4	5	6	7	8	9	10	11	12	13
Calanus hyperboreus	(F)			136	19			1	3	4	2	19	71	79
Calanus glacialis	(M)			4	18				13	8	6			
Calanus glacialis	(CIV)							1						
Calanus glacialis	(us.)						7							
Euchaeta glacialis	(F)	665												
Euchaeta glacialis	(CV f+m)													
Euchaeta glacialis	(us.)	4			22			1	5	8	21	66	100	238
Metridia longa	(F)	652		114	80		12	136	228	169	38	71	409	764
Metridia longa	(CIV f+m)									6				
Calanoid (unspeciated)			n/c+			33								
Isopod		9			1		1	1	1		5			2
Hyperia medusarum				3		4		1	1	1	1			
Themisto libellula				1			2	1			1			
Polychaete larvae								1	1					
Spiratella helicina		8		n/c-	17	724	380	132	204	246	611	210	28	9
Eggs (?)											n/c+			
Conchoecia borealis maxima										1				
Philomedes globosa									1					

SS4

	Sample #:	1	2	3	4	5	6	7	8	9	10
Calanus hyperboreus	(F)		6	15	2	3	2		2		4
Calanus glacialis	(M)		1							3	1
Metridia longa	(F)		59	34	6	9	27	10	32	10	8
Metridia longa	(CIV f+m)							20			
Calanoid (unspeciated)		35									
Isopod		1		12	1	14	8	1	4	7	1
Hyperia medusarum		1	3		1					1	3
Spiratella helicina				26	51	20	29	10	29	68	60

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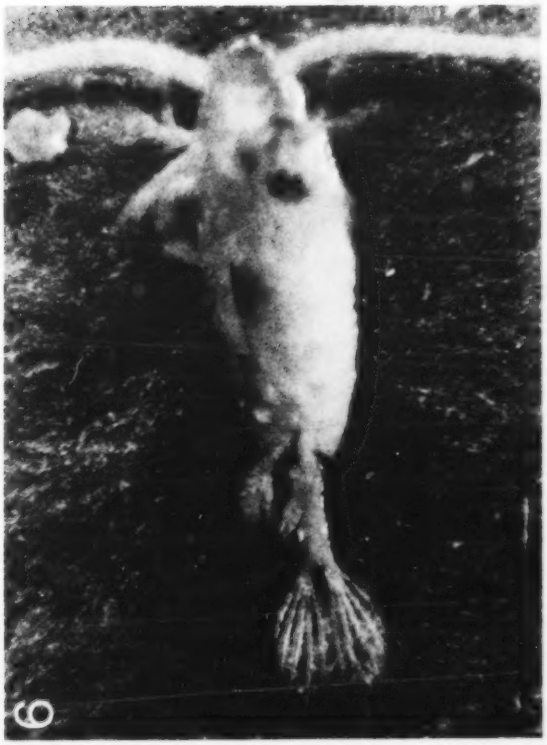
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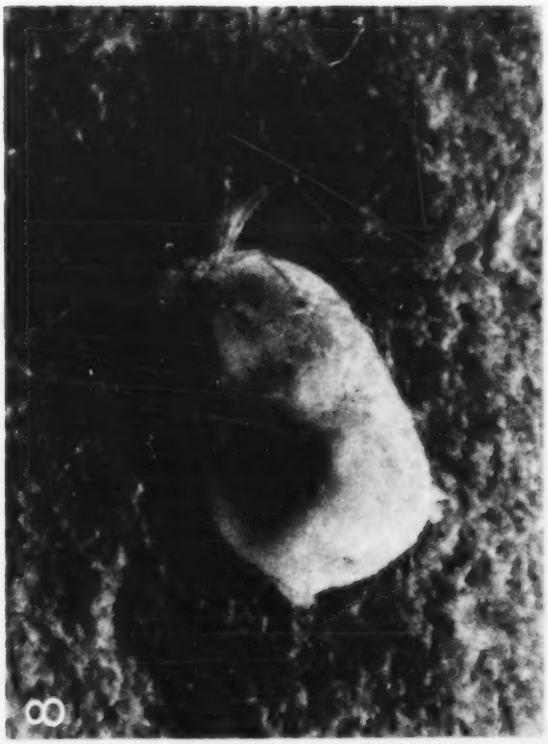
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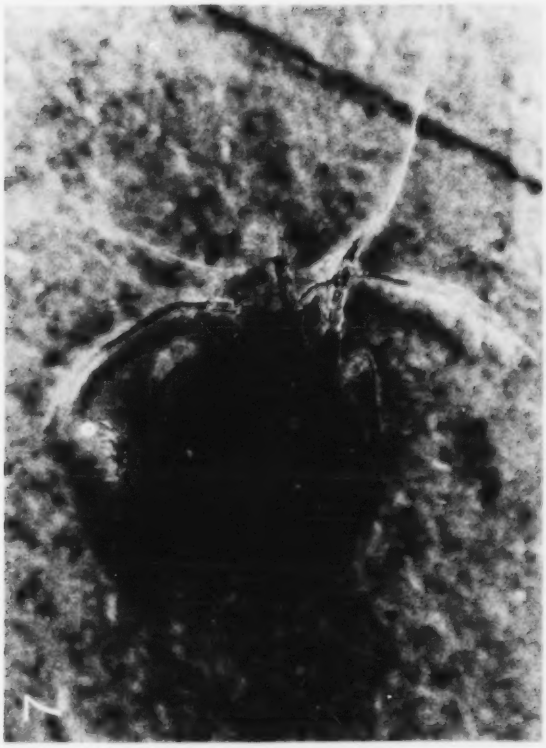
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9 Appendix E

MULTI-TRAPS - TOTAL FLUXES AND CHEMICAL DATA

This appendix includes tables of chemical and flux data for the multi-traps as well as a small number of SEM photographs. The data tables are ordered as follows:

1. Total fluxes
2. Aluminum
3. Calcium
4. Iron
5. Silica
6. Phosphorus
7. Chlorophyll a, phaeopigments (<63, <500 μm)
8. Particulate carbon and nitrogen (<500 μm)
9. Particulate carbon and nitrogen (63-500, <63 μm)

LIST OF SEM PHOTOGRAPHS

1. Station 5, May 1987, Ice Algae (5)
2. Station 9-1 (10m), 1987, fecal pellets and pteropod.

APPENDIX E
MULTI-TRAP STATIONS – TOTAL FLUXES

STATION	DEPTH (m)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	>500 TOTAL TRAPPED (mg/m^2/day)	>500 ZOOPLKTN TRAPPED (mg/m^2/day)	>500 ALGAE FLUX (mg/m^2/day)	<500 TOTAL FLUX (mg/m^2/day)	63-500 TOTAL FLUX (mg/m^2/day)	<63 TOTAL FLUX (mg/m^2/day)
MT STN 3	6	214.469	249.69						
MT STN 3	8							negligible	247460.000
								negligible	447725.000
MT STN 7	17	218.785	126.65						
MT STN 7	42						1670	20.000	1650.000
								negligible	32015.000
MT STN 4-1	5	99.888	151.72	0.516	0.516	0.000	18.953	1.969	16.984
MT STN 4-1	10			11.068	5.56	5.508	119.86	5.704	114.156
MT STN 4-2	5	126.721	119.47						
MT STN 4-2	10						36.046	8.302	27.744
							813.858	3.639	810.219
MT STN 5-1	10	97.653		21.473	19.145	2.328	42.344	7.412	34.932
MT STN 5-1	15		147.56	23.349	13.777	9.572	98.345	9.182	94.836
MT STN 5-1	20		147.56	56.561	38.192	18.369	253.083	15.35	237.733
			147.57						
MT STN 5-2	10	119.660		38.589	31.205	7.384	142.952	10.943	132.009
MT STN 5-2	15	119.660	249.69	1.542	0.784	0.758	187.877	9.515	178.362
MT STN 5-2	20	119.660		17.642	12.183	5.459	443.927	16.331	427.596
MT STN 9-1	10	94.590	119.74	166.84	157.417	9.423	21.729	7.883	13.845
MT STN 9-1	40			7.348	3.814	3.534	29.315	8.72	20.595
MT STN 9-2	10	119.781	144.50	9.617	2.682	6.935	23.03	4.55	18.480
MT STN 9-2	40			4.851	0.285	4.566	81.122	9.035	72.087

APPENDIX E
MULTI-TRAP STATIONS - %Al AND Al FLUXES FOR <500, <63 AND 63-500 FRACTIONS

STATION	DEPTH (m)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	<500 %Al	63-500 %Al	<63 %Al	Al FLUX <500 (mg/m^2/d)	Al FLUX 63-500 (mg/m^2/d)	Al FLUX <63 (mg/m^2/d)
MT STN 3	6	214.469	249.69			7.312			18.094
MT STN 3	8					7.615			34.094
MT STN 7	17	218.785	126.65			9.622			0.159
MT STN 7	42					9.472			3.032
MT STN 4-1	5	99.888	151.72	5.484	2.338	5.849	1.039	0.046	0.993
MT STN 4-1	10			9.878	7.072	10.018	11.840	0.403	11.436
MT STN 4-2	5	126.721	119.47	5.851	5.851	5.851	2.109	0.486	1.623
MT STN 4-2	10					8.516			68.994
MT STN 5-1	10	97.653		8.337	7.590	8.495	3.530	0.563	2.968
MT STN 5-1	15		147.56	9.491	5.339	9.325	9.334	0.490	8.843
MT STN 5-1	20		147.56	7.976	5.280	8.150	20.185	0.811	19.375
			147.57						
MT STN 5-2	10	119.660		7.693	4.263	7.977	10.997	0.467	10.531
MT STN 5-2	15	119.660	249.69	9.058	6.554	9.192	17.018	0.624	16.394
MT STN 5-2	20	119.660		8.895	6.423	8.990	39.489	1.049	38.440
MT STN 9-1	10	94.590	119.74	1.547	2.245	1.149	0.336	0.177	0.159
MT STN 9-1	40			6.598	6.565	6.611	1.934	0.572	1.362
MT STN 9-2	10	119.781	144.50	3.080	1.309	3.516	0.709	0.060	0.650
MT STN 9-2	40			7.919	5.754	8.190	6.424	0.520	5.904

APPENDIX E
MULTI-TRAP STATIONS - %Ca AND Ca FLUXES FOR <500, <63 AND 63-500 FRACTIONS

STATION	DEPTH (m)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	<500 %Ca	63-500 %Ca	<63 %Ca	Ca FLUX <500 (mg/m^2/d)	Ca FLUX 63-500 (mg/m^2/d)	Ca FLUX <63 (mg/m^2/d)
MT STN 3	6	214.469	249.69			3.989			9.871
MT STN 3	8					4.483			20.073
MT STN 7	17	218.785	126.65			0.841			0.014
MT STN 7	42					1.170			0.375
MT STN 4-1	5	99.888	151.72	0.747	0.655	0.758	0.142	0.013	0.129
MT STN 4-1	10			1.232	1.024	1.242	1.476	0.058	1.418
MT STN 4-2	5	126.721	119.47	1.323	1.226	1.351	0.477	0.102	0.375
MT STN 4-2	10					2.033			16.475
MT STN 5-1	10	97.653		1.127	1.477	1.052	0.477	0.109	0.368
MT STN 5-1	15		147.56	1.360	1.443	1.270	1.337	0.133	1.205
MT STN 5-1	20		147.56 147.57	0.986	0.834	0.996	2.495	0.128	2.367
MT STN 5-2	10	119.660		1.621	2.954	1.511	2.318	0.323	1.994
MT STN 5-2	15	119.660	249.69	1.606	1.090	1.633	3.017	0.104	2.913
MT STN 5-2	20	119.660		1.239	0.921	1.251	5.499	0.150	5.348
MT STN 9-1	10	94.590	119.74	6.740	8.118	5.955	1.464	0.640	0.824
MT STN 9-1	40			1.081	1.047	1.095	0.317	0.091	0.225
MT STN 9-2	10	119.781	144.50	3.778	8.740	2.556	0.870	0.398	0.472
MT STN 9-2	40			1.110	2.192	0.975	0.901	0.198	0.703

APPENDIX E
MULTI-TRAP STATIONS – %Fe AND Fe FLUXES FOR <500, <63 AND 63-500 FRACTIONS

STATION	DEPTH (m)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	<500 %Fe	63-500 %Fe	<63 %Fe	Fe FLUX <500 (mg/m^2/d)	Fe FLUX 63-500 (mg/m^2/d)	Fe FLUX <63 (mg/m^2/d)
MT STN 3	6	214.469	249.69			3.247			8.034
MT STN 3	8					3.221			14.423
MT STN 7	17	218.785	126.65			4.322			0.071
MT STN 7	42					4.191			1.342
MT STN 4-1	5	99.888	151.72	2.995	1.292	3.192	0.568	0.025	0.542
MT STN 4-1	10			4.869	3.774	4.924	5.836	0.215	5.621
MT STN 4-2	5	126.721	119.47	3.466	3.980	3.312	1.249	0.330	0.919
MT STN 4-2	10					4.312			34.940
MT STN 5-1	10	97.653		4.010	2.839	4.259	1.698	0.210	1.488
MT STN 5-1	15		147.56	4.711	2.986	4.597	4.633	0.274	4.359
MT STN 5-1	20		147.56 147.57	4.157	3.576	4.195	10.522	0.549	9.973
MT STN 5-2	10	119.660		3.770	3.917	3.758	5.390	0.429	4.961
MT STN 5-2	15	119.660	249.69	4.190	2.801	4.264	7.872	0.267	7.605
MT STN 5-2	20	119.660		4.173	3.897	4.184	18.527	0.636	17.891
MT STN 9-1	10	94.590	119.74	0.704	1.002	0.535	0.153	0.079	0.074
MT STN 9-1	40			4.236	4.301	4.208	1.242	0.375	0.867
MT STN 9-2	10	119.781	144.50	1.800	0.562	2.105	0.415	0.026	0.389
MT STN 9-2	40			3.784	3.467	3.824	3.070	0.313	2.756

APPENDIX E
MULTI-TRAP STATIONS - %Si AND Si FLUXES FOR <500, <63 AND 63-500 FRACTIONS

STATION	DEPTH (m)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	<500 %Si	63-500 %Si	<63 %Si	Si FLUX <500 (mg/m^2/d)	Si FLUX 63-500 (mg/m^2/d)	Si FLUX <63 (mg/m^2/d)
MT STN 3	6	214.469	249.69			25.86			63980.920
MT STN 3	8					25.33			113417.591
MT STN 7	17	218.785	126.65			25.06			413.414
MT STN 7	42					24.78			7933.410
MT STN 4-1	5	99.888	151.72	9.947	8.80	10.08	1.885	0.173	1.712
MT STN 4-1	10			26.315	13.35	26.96	31.541	0.762	30.779
MT STN 4-2	5	126.721	119.47	18.983	13.11	20.74	6.843	1.088	5.754
MT STN 4-2	10					25.40			205.833
MT STN 5-1	10	97.653		15.195	8.91	16.53	6.434	0.661	5.774
MT STN 5-1	15		147.56	19.937	8.88	19.81	19.607	0.815	18.791
MT STN 5-1	20		147.56	22.827	11.95	23.53	57.771	1.835	55.936
			147.57						
MT STN 5-2	10	119.660		22.158	10.66	23.11	31.675	1.166	30.509
MT STN 5-2	15	119.660	249.69	24.490	14.32	25.03	46.011	1.363	44.648
MT STN 5-2	20	119.660		24.090	14.67	24.45	106.942	2.396	104.546
MT STN 9-1	10	94.590	119.74	2.935	3.12	2.83	0.638	0.246	0.392
MT STN 9-1	40			11.838	7.18	13.81	3.470	0.626	2.844
MT STN 9-2	10	119.781	144.50	7.515	7.92	7.41	1.731	0.360	1.370
MT STN 9-2	40			19.712	11.06	20.80	15.990	1.000	14.991

APPENDIX E
MULTI-TRAP STATIONS – %P AND P FLUXES FOR <500, <63 AND 63-500 FRACTIONS

STATION	DEPTH (m)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	<500 %P	63-500 %P	<63 %P	P FLUX <500 (ug/m^2/d)	P FLUX 63-500 (ug/m^2/d)	P FLUX <63 (ug/m^2/d)
MT STN 3	6	214.469	249.69			0.0859			212.47
MT STN 3	8					0.0866			387.77
MT STN 7	17	218.785	126.65			0.1426			2.35
MT STN 7	42					0.1323			42.37
MT STN 4-1	5	99.888	151.72	0.3432	0.6100	0.3123	65.06	12.01	53.04
MT STN 4-1	10			0.1214	0.1418	0.1204	145.52	8.09	137.43
MT STN 4-2	5	126.721	119.47	0.1636	0.1719	0.1612	58.98	14.27	44.71
MT STN 4-2	10					0.1046			847.78
MT STN 5-1	10	97.653		0.3559	0.4151	0.3433	150.70	30.77	119.93
MT STN 5-1	15		147.56	0.1726	0.1741	0.1622	169.77	15.98	153.78
MT STN 5-1	20		147.56	0.1883	0.2228	0.1860	476.46	34.20	442.26
			147.57						
MT STN 5-2	10	119.660		0.1682	0.2393	0.1623	240.43	26.18	214.25
MT STN 5-2	15	119.660	249.69	0.1370	0.1650	0.1355	257.38	15.70	241.68
MT STN 5-2	20	119.660		0.1472	0.1746	0.1462	653.66	28.52	625.15
MT STN 9-1	10	94.590	119.74	0.3469	0.2961	0.3759	75.38	23.35	52.04
MT STN 9-1	40			0.1794	0.1887	0.1754	52.58	16.45	36.12
MT STN 9-2	10	119.781	144.50	0.1982	0.1638	0.2066	45.64	7.45	38.19
MT STN 9-2	40			0.1733	0.1632	0.1746	140.58	14.75	125.83

APPENDIX E
STATIONS 3 AND 7 – CHLOROPHYLL a AND PHAEO-PIGMENT FLUXES

STATION	DEPTH (m)	DEPLOY JULIAN DAY	RECOVER JULIAN DAY	<63 PHAEO (ug/cup)	<63 PHAEO FLUX (ug/m2/day)	<63 CHLA (ug/cup)	<63 CHLA FLUX (ug/m2/day)	<500 PHAEO (ug/cup)	<500 PHAEO FLUX (ug/m2/day)	<500 CHLA (ug/cup)	<500 CHLA FLUX (ug/m2/day)
MT STN 3	6	214.47	249.69	883.237	3538.152	122.178	489.433				
MT STN 3	8			422.635	1693.030	64.240	257.339				
MT STN 7	17	218.79	249.69	26.436	120.690	17.844	81.466	553.190	2525.514	276.230	1261.091
MT STN 7	42			22.365	102.104	10.972	50.092				

APPENDIX E
MULTI-TRAP STATIONS - CARBON AND NITROGEN DATA FOR <500 FRACTION
(SUM OF 63-500 u AND <63 u FRACTIONS)

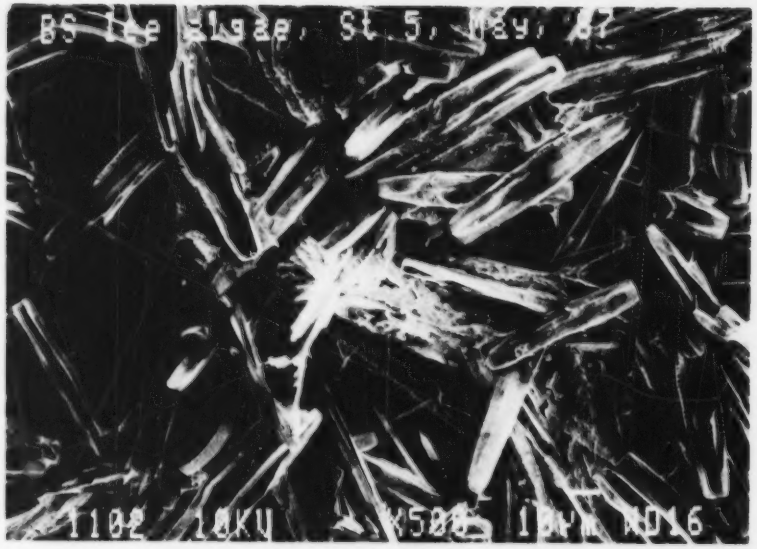
STN	DEPTH (m)	DEPLOY JULIAN DAYS	RECOVER JULIAN DAYS	<500 C/N	<500 %N	<500 %C	N FLUX <500 (mg/m^2/d)	C FLUX <500 (mg/m^2/d)
MT STN 3	6	214.469	249.688					
MT STN 3	8							
MT STN 7	17	218.785	249.688					
MT STN 7	42							
MT STN 4-1	5	99.888	126.646	5.471	1.540	8.428	0.292	1.598
MT STN 4-1	10			8.005	0.350	2.803	0.420	3.360
MT STN 4-2	5	126.721	151.719					
MT STN 4-2	10							
MT STN 5-1	10	97.653	119.465	5.760	2.238	12.891	0.948	5.459
MT STN 5-1	15			6.033	0.998	6.018	0.981	5.918
MT STN 5-1	20			6.345	0.852	5.404	2.156	13.677
MT STN 5-2	10	119.660	147.556	6.240	1.294	8.074	1.850	11.542
MT STN 5-2	15	119.660	147.563	8.643	0.400	3.458	0.752	6.496
MT STN 5-2	20	119.660	147.569	8.362	0.341	2.851	1.513	12.656
MT STN 9-1	10	94.590	119.743	6.849	4.319	29.579	0.938	6.427
MT STN 9-1	40			8.880	0.894	7.938	0.262	2.327
MT STN 9-2	10	119.781	144.500					
MT STN 9-2	40			9.060	0.666	6.036	0.540	4.897

See TABLE for explanation of calculations and notes.

APPENDIX E
MULTI-TRAP STATIONS - CARBON AND NITROGEN DATA FOR 63-500 u AND <63 FRACTIONS

STN	DEPTH (m)	DEPLOY JULIAN DAYS	RECOVER JULIAN DAYS	63-500 C/N	63-500 %N	63-500 %C	N FLUX 63-500 (mg/m^2/d)	C FLUX 63-500 (mg/m^2/d)	<63 C/N	<63 %N	<63 %C	N FLUX <63 (mg/m^2/d)	C FLUX <63 (mg/m^2/d)
MT STN 3	6	214.469	249.688										
MT STN 3	8								15.13	0.126	1.900	0.312	4.702
									12.17	0.129	1.573	0.578	7.043
MT STN 7	17	218.785	249.688										
MT STN 7	42								7.31	0.341	2.491	0.0056	0.0411
									7.26	0.298	2.098	0.0954	0.6717
MT STN 4-1	5	99.888	126.646	5.29	5.289	28.000	0.1041	0.5513	5.57	1.106	6.160	0.188	1.046
MT STN 4-1	10			8.84	0.754	6.670	0.0430	0.3805	7.90	0.330	2.610	0.377	2.979
MT STN 4-2	5	126.721	151.719										
MT STN 4-2	10								9.33	0.825	7.700	0.229	2.136
									9.47	0.141	1.340	1.142	10.857
MT STN 5-1	10	97.653	119.465	5.64	5.509	31.090	0.4083	2.3044	5.85	1.544	9.030	0.539	3.154
MT STN 5-1	15			6.28	2.039	12.810	0.1872	1.1762	5.98	0.837	5.000	0.794	4.742
MT STN 5-1	20			5.98	1.978	11.820	0.3036	1.8144	6.40	0.779	4.990	1.852	11.863
MT STN 5-2	10	119.660	147.556	5.44	4.513	24.530	0.4939	2.6843	6.54	1.027	6.710	1.356	8.858
MT STN 5-2	15	119.660	147.563	8.23	1.507	12.410	0.1434	1.1808	8.75	0.341	2.980	0.608	5.315
MT STN 5-2	20	119.660	147.569	8.63	0.758	6.540	0.1238	1.0680	8.36	0.325	2.710	1.390	11.588
MT STN 9-1	10	94.590	119.743	6.12	4.241	25.980	0.3343	2.0480	7.25	4.363	31.630	0.6041	4.3792
MT STN 9-1	40			9.33	0.868	8.100	0.0757	0.7063	8.69	0.905	7.870	0.1864	1.6208
MT STN 9-2	10	119.781	144.500										
MT STN 9-2	40			10.16	0.764	7.760	0.0690	0.7011	10.04	1.455	14.620	0.2689	2.7018
									8.89	0.654	5.820	0.4714	4.1955

See TABLE for explanation of calculations and notes.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102 10KV X500 10µm HD16

BS Ice algae, St 5, May, 87
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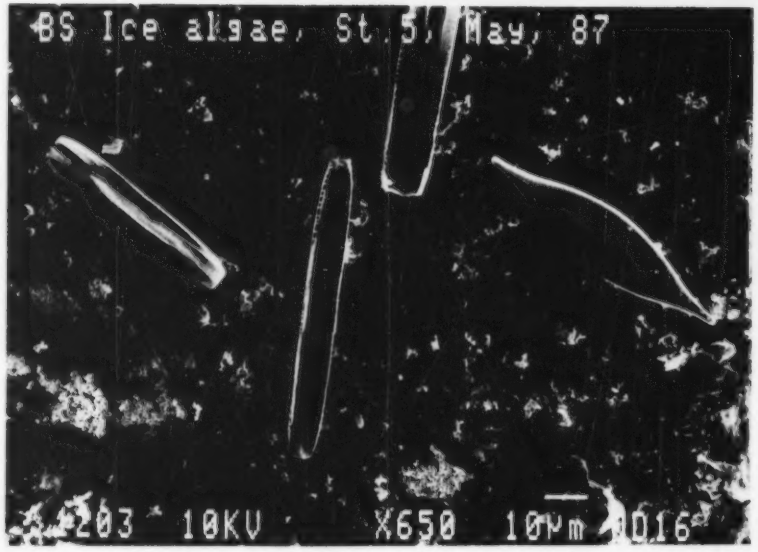
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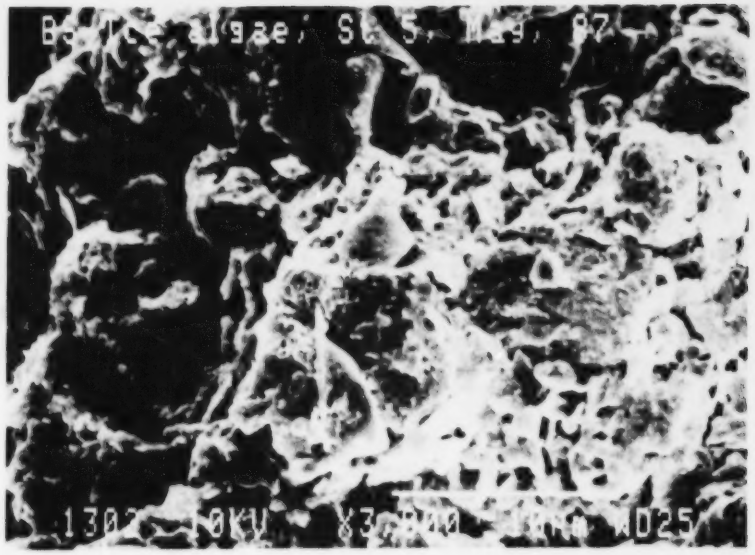
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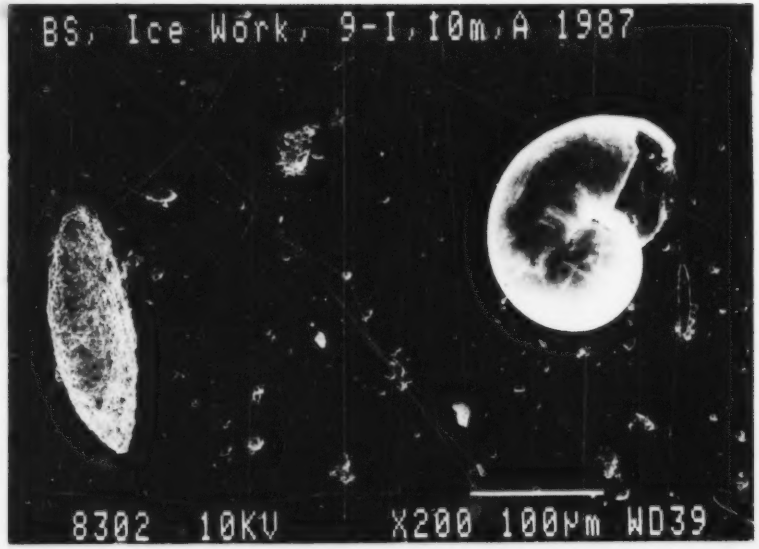
BS, Ice Work, 9-I,10m,A 1987
8302 10KV X200 100µm WD39

BS, Ice Work, 9-I,10m,A 1987
8301 10KV X140 100µm WD39

10KV

10 Appendix F

MULTI-TRAPS - SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

APPENDIX F
MULTI-TRAP STATION 3 – FLUX CALCULATIONS

ST	CUP #	DEPTH (m)	DURATION (DAYS)	SIZE FRACT.	SUB-SMPL.	WEIGHT SUBSMPL (g)	TOTAL WEIGHT (g)	CUP FLUX (g/m2/day)	AVERAGE FLUX (g/m2/day)
3	B-4 (B1)	6	35.219	<500	A	6.213	53.099	212.711	247.460
				<500	B	11.186			
				<500	C	35.700			
3	B-4 (B2)	6	35.219	<500	A	7.627	67.795	271.582	
				<500	B	10.866			
				<500	C	49.302			
3	B-4 (B5)	6	35.219	<500	A	6.366	58.919	236.023	
				<500	B	7.544			
				<500	C	45.008			
3	B-4 (B8)	6	35.219	<500	A	7.033	67.282	269.525	
				<500	B	6.741			
				<500	C	53.508			
3	B-2 (A1)	8	35.219	<500	A	7.666	101.505	406.619	447.725
				<500	B	93.838			
3	B-2 (A2)	8	35.219	<500	A	15.948	109.843	440.021	
				<500	B	93.895			
3	B-2 (A7)	8	35.219	<500	A	29.039	124.857	500.166	
				<500	B	95.818			
3	B-2 (A3)	8	35.219	<500	A	10.129	110.859	444.092	
				<500	B	100.731			

APPENDIX F
MULTI-TRAP STATION 3 (6 m) – SPLITTING INFORMATION AND SUBSAMPLE WEIGHTS

STN	CUP #	DEPTH (m)	SIZE FRACT.	SAMPLE TYPE	SUB-MPL	FRACT. OF SUBSMPL	FRACT. OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. IN CUP (g)	NOTES
3	B-4 (B1)	6	<500	TOTAL	A	1.000	0.1170					6.213	1
			<500	POC-1	A	0.063	0.0073	176.500	S	562.450	385.950	6.175	
			<500	POC-2	A	0.063	0.0073	160.530	S	531.140	370.610	5.930	2
			<500	C13-1	A	0.063	0.0073	153.670	S	389.180	235.510	3.768	3
			<500	C13-2	A	0.063	0.0073	166.250	S	571.580	405.330	6.485	
			<500	M-1	A	0.125	0.0146	15.560	N	730.500	714.940	5.720	
			<500	M-2	A	0.125	0.0146	16.110	N	779.400	763.290	6.106	
			<500	M-3	A	0.125	0.0146	15.620	N	846.700	831.080	6.649	
			<500	M-4	A	0.063	0.0073	15.790	N	417.730	401.940	6.431	
			<500	SEM	A	0.063	0.0073	15.490	N	388.920	373.430	6.089	4
			<500	SEM	A	10 DROPS		16.050	N	23.180	7.130		
			<500	LM	A	0.063	0.0073						5
			<500	CHLA	A	0.063	0.0073		GFF				
			<500	PIGMENT	A	0.063	0.0073		GFF				
			<500	PIGMENT	A	0.063	0.0073						
			<500	TOTAL	B	1.000	0.2107					11.186	
			<500	TOTAL	C	1.000	0.6723					35.700	

COMMENTS : The above table discribes the splitting of one cup which is then divided into subsamples A, B and C.

NOTES :
1. POC-2 and C13-1 samples excluded from calculation, SEM sample included.
2. Leak around edge of filter during filtration.
3. Leak around edge of filter during filtration.
4. 10 drops of this sample filtered onto another nucleopore for the SEM sample.
5. LM sample split between two vials.

APPENDIX F

MULTI-TRAP STATION 3 (8 m) – SPLITTING INFORMATION AND SUBSAMPLE WEIGHTS

STN	CUP #	DEPTH (m)	SIZE FRACT.	SAMPLE TYPE	SUB-MPL	FRACT OF SUBSMPL	FRACT OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT IN CUP (g)	NOTES
3	B-2 (A1)	8	<500	TOTAL	A	1.000	0.0755					7.666	1
			<500	POC-1	A	0.063	0.0047	181.110	S	663.000	481.890	7.710	
			<500	POC-2	A	0.063	0.0047	161.960	S	612.040	450.080	7.201	
			<500	C13-1	A	0.063	0.0047	166.870	S	629.000	462.130	7.394	
			<500	C13-2	A	0.063	0.0047	163.150	S	481.770	318.620	5.098	2
			<500	M-1	A	0.125	0.0094	15.530	N	948.470	932.940	7.464	
			<500	M-2	A	0.125	0.0094	15.600	N	1005.100	989.500	7.916	
			<500	M-3	A	0.125	0.0094	15.530	N	993.300	977.770	7.822	
			<500	M-4	A	0.125	0.0094	15.940	N	986.800	970.860	7.767	
			<500	SEM	A	0.063	0.0047	15.630	N	492.000	476.370	7.755	3
			<500	SEM	A	10 DROPS		15.520	N	23.850	8.330		
			<500	LM	A	0.063	0.0047						4
			<500	CHLA	A	0.063	0.0047		GFF				
			<500	PIGMENT	A	0.063	0.0047		GFF				
			<500	TOTAL	B	1.000	0.9245					93.838	

COMMENTS : The above table describes the splitting of one cup divided into subsamples A and B. Of the 8 cups on the trap, cups 1,2,5 and 8 were assigned to POC and metal analysis. Cups 3,4,6 and 7 were assigned to hydrocarbon analysis.

NOTES :

1. C13-2 sample not included in calculation, wt from SEM sample included.
2. Small amount of leakage around edge of filter.
3. 10 drops of this sample filtered onto another nucleopore for SEM sample.
4. LM sample broken into two vials.

APPENDIX F
MULTI-TRAP STATION 7 - FLUX CALCULATIONS

ST	CUP #	DEPTH (m)	DURATION (DAYS)	SIZE FRACT.	SUB-SMPL.	WEIGHT SUBSMPL (g)	TOTAL WEIGHT (g)	CUP FLUX (g/m2/day)	AVERAGE FLUX (g/m2/day)
7	B-5 (I1)	42	30.903	<500	A	3.149	6.729	30.720	32.015
				<500	B	3.580			
7	B-5 (I2)	42	30.903	<500	A	1.278	7.296	33.310	
				<500	B	0.819			
				<500	C	5.199			
7	B-30 (J1)	17	30.903	<500	A	0.345	0.345	1.577	1.670
				63-500	A	0.005	0.005	0.025	0.020
				<63	A	0.340	0.340	1.552	1.650
7	B-30 (J2)	17	30.903	<500	A	0.386	0.386	1.763	
				63-500	A	0.003	0.003	0.016	
				<63	A	0.383	0.383	1.747	

APPENDIX F

MULTI-TRAP STATION 7 (42 m – CUP I1) – SPLITTING INFORMATION AND SUBSAMPLE WEIGHTS

STN	CUP #	DEPTH (m)	SIZE FRACT.	SAMPLE TYPE	SUB-MPL	FRACT. OF SUBSMPL	FRACT. OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. IN CUP (g)	NOTES
7	B-5 (I1)	42	>500	TOTAL	A	1.000	1.000	15.776	N	17.400	1.624	0.002	1
			63-500	TOTAL	A	1.000	1.000						2
			<63	TOTAL	A	1.000	0.4680					3.149	3
			<63	POC-1	A	0.016	0.0073	142.990	S	191.510	48.520	3.105	
			<63	POC-2	A	0.016	0.0073	143.340	S	193.080	49.740	3.183	
			<63	POC-3	A	0.063	0.0292	148.510	S	363.490	214.980	3.440	
			<63	C13-1	A	0.016	0.0073	154.230	S	203.960	49.730	3.183	
			<63	C13-2	A	0.016	0.0073	171.520	S	220.990	49.470	3.166	
			<63	M-1	A	0.031	0.0146	15.630	N	114.670	99.040	3.169	
			<63	M-2	A	0.031	0.0146	16.030	N	111.030	95.000	3.040	
			<63	M-3	A	0.063	0.0292	15.920	N	213.920	198.000	3.168	
			<63	M-4	A	0.250	0.1170	15.400	N	806.900	791.500	3.166	
			<63	M-5	A	0.250	0.1170	15.870	N	793.720	777.850	3.111	
			<63	SEM	A	0.063	0.0292	15.710	N	198.840	183.130	2.956	4
			<63	SEM	A	10 DROPS		15.920	N	17.560	1.640		
			<63	LM	A	0.063	0.0292						5
			<63	CHLA	A	0.063	0.0292		GFF				
			<63	PIGMENT	A	0.063	0.0292		GFF				
			<63	TOTAL	B	1.000	0.5320					3.580	

COMMENTS : e splitting of one cup into two main subsamples A and B.

NOTES :
1. Negligibly small amount, large fecal pellet filtered onto nucleopore.
2. Very small amount on sieve, could not remove from sieve to recover.
3. Calculated using subsample weights.
4. 10 drops of this sample filtered onto another nucleopore for the SEM subsample.
5. Sample divided into two vials.

APPENDIX F
MULTI-TRAP STATION 7 (42 m – CUP I2) – SPLITTING INFORMATION AND SUBSAMPLE WEIGHTS

STN	CUP #	DEPTH (m)	SIZE FRACT.	SAMPLE TYPE	SUB-MPL	FRACT. OF SUBSMPL	FRACT. OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. IN CUP (g)	NOTES
7	B-5 (I2)	42	<500	TOTAL	A	1.000	0.1752					1.278	1
			<500	POC-1	A	0.063	0.0109	163.140	S	241.680	78.540	1.257	
			<500	POC-2	A	0.063	0.0109	134.620	S	218.560	83.940	1.343	
			<500	C13-1	A	0.063	0.0109	166.970	S	243.720	76.750	1.228	
			<500	C13-2	A	0.063	0.0109	178.890	S	255.200	76.310	1.221	
			<500	M-1	A	0.063	0.0109	15.610	N	95.130	79.520	1.272	
			<500	M-2	A	0.063	0.0109	15.840	N	96.110	80.270	1.284	
			<500	M-3	A	0.063	0.0109	15.790	N	97.580	81.790	1.309	
			<500	M-4	A	0.063	0.0109	15.700	N	94.080	78.380	1.254	
			<500	M-5	A	0.125	0.0219	16.000	N	173.930	157.930	1.263	
			<500	M-6	A	0.125	0.0219	15.660	N	179.960	164.300	1.314	
			<500	SEM	A	0.063	0.0109	15.940	N	93.560	77.620	1.288	2
			<500	SEM	A	10 DROPS		15.920	N	18.810	2.890		
			<500	LM	A	0.063	0.0109						
			<500	CHLA	A	0.063	0.0109		GFF				
			<500	PIGMENT	A	0.063	0.0109		GFF				
			<500	TOTAL	B	1.000	0.1123					0.819	
			<500	TOTAL	C	1.000	0.7125					5.199	

COMMENTS : of one cup into subsamples A, B and C.

NOTES: 1. No 63 u sieve step, 63-500 u fraction negligibly small.
2. 10 drops of this sample filtered onto another nucleopore.

APPENDIX F
MULTI-TRAP STATION 7 (17 m – CUP J1) – SPLITTING INFORMATION AND SUBSAMPLE WEIGHTS

STN	CUP #	DEPTH (m)	SIZE FRACT.	SAMPLE TYPE	SUB-MPL	FRACT. OF SUBSMPL	FRACT. OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. IN CUP (g)	NOTES
7	B-30 (J1)	17	>500		A								1
			<500	TOTAL	A	1.000	1.000					0.345	2
			63-500	POC-1	A	1.000	0.016	142.140	S	147.560	5.420	0.005	3
			<63	TOTAL	A	1.000	0.984					0.340	4
			<63	POC-1	A	0.063	0.062	168.770	S	173.210	4.440	0.071	
			<63	POC-2	A	0.063	0.062	149.930	S	174.880	24.950	0.399	
			<63	POC-3	A	0.063	0.062	174.110	S	198.130	24.020	0.384	
			<63	POC-4	A	0.063	0.062	137.350	S	159.270	21.920	0.351	
			<63	C13-1	A	0.063	0.062	145.760	S	168.990	23.230	0.372	
			<63	C13-2	A	0.063	0.062	158.420	S	183.470	25.050	0.401	
			<63	C13-3	A	0.063	0.062	158.870	S	182.720	23.850	0.382	
			<63	C13-4	A	0.063	0.062	146.250	S	164.900	18.650	0.298	
			<63	M-1	A	0.063	0.062	15.840	N	36.590	20.750	0.332	
			<63	M-2	A	0.063	0.062	15.710	N	38.560	22.850	0.366	
			<63	M-3	A	0.063	0.062	15.790	N	37.460	21.670	0.347	
			<63	M-4	A	0.063	0.062	15.590	N	37.720	22.130	0.354	
			<63	SEM	A	0.063	0.062	15.860	N	38.140	22.280	0.363	5
			<63	SEM	A	10 DROPS		16.050	N	16.460	0.410		6
			<63	LM	A	0.063	0.062						
			<63	CHLA	A	0.063	0.062		GFF				
			<63	PIGMENT	A	0.063	0.062		GFF				

NOTES :
1. Amount on sieve too small to recover.
2. Sum of <63 and 63-500 fractions.
3. Very small amount of sample on 63 u sieve.
4. Calculated from the weights of the <63 u subsamples.
5. 10 drops of this sample filtered onto another nucleopore.
6. LM sample divided into two vials.

APPENDIX F
MULTI-TRAP STATION 7 (17 m – CUP J2) – SPLITTING INFORMATION AND SUBSAMPLE WEIGHTS

STN	CUP #	DEPTH (m)	SIZE FRACT.	SAMPLE TYPE	SUB-MPL	FRACT. OF SUBSMPL	FRACT. OF TOTAL	FILTER WT. (mg)	FILTER TYPE	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. IN CUP (g)	NOTES
													1
7	B-30 (J2)	17	>500		A							0.386	2
			<500	TOTAL	A	1.000	1.000					0.003	3
			63-500	POC-1	A	1.000	0.009	173.690	S	177.160	3.470	0.383	4
			<63	TOTAL	A	1.000	0.991						
			<63	POC-1	A	0.125	0.123	153.510	S	200.940	47.430	0.379	
			<63	POC-2	A	0.125	0.127	168.450	S	217.620	49.170	0.393	
			<63	C13-1	A	0.125	0.122	131.800	S	178.800	47.000	0.376	
			<63	C13-2	A	0.125	0.125	164.370	S	212.500	48.130	0.385	
			<63	M-1	A	0.125	0.124	15.770	N	63.530	47.760	0.382	
			<63	M-2	A	0.125	0.120	15.630	N	62.010	46.380	0.371	
			<63	SEM	A	0.063	0.064	16.040	N	40.660	24.620	0.401	
			<63	SEM	A	10 DROPS		16.120	N	16.580	0.460		
			<63	LM	A	0.063							
			<63	CHLA	A	0.063			GFF				
			<63	PIGMENT	A	0.063			GFF				

NOTES :
1. Sieved but no sample.
2. Sum of <63 and 63-500 fractions.
3. Very small amount of sample on 63 u sieve.
4. Calculated from the weights of the <63 u subsamples.

APPENDIX F

MULTI-TRAP STATION 4-1 - SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
4-1	5	8	>500	ALG+ZOOPL	1.000	S	144.030	144.810	0.780	0.780	0.516	
	5	8	>500	ALGAE	1.000		144.030	143.870	-0.160			
	5	8	<500	SEM	0.048	N	16.730	17.741	1.011	20.894		
	5	8	<500	LM	0.097							
	5	8	63-500	POC-1	0.285	S	152.810	153.710	0.900	3.158	1.969	18.954
	5	8	63-500	POC-2	0.285	S	146.140	147.000	0.860	3.018		
	5	8	63-500	M-1	0.285	N	16.009	16.792	0.783	2.748		
	5	8	<63	POC-1	0.214	S	111.360	119.100	7.740	36.217	16.984	
	5	8	<63	POC-2	0.214	S	112.890	120.820	7.930	37.106		
	5	8	<63	M-1	0.214	N	15.818	18.895	3.077	14.398		
	5	8	<63	M-2	0.214	N	15.684	18.869	3.185	14.903		
4-1	10	6	<350	HC	0.071	S	148.420	176.070	27.650		341.676	
	10	2	>500	ALG+ZOOPL	1.000	S	155.180	159.360	4.180	4.180	11.068	
	10	2	>500	ALGAE	1.000		155.180	157.260	2.080	2.080	5.508	
	10	2	<500	SEM	0.051	N	17.070	20.023	2.953	57.583		
	10	2	<500	LM	0.109							
	10	2	63-500	POC-1	0.280	S	136.900	137.470	0.570	2.036	5.704	119.860
	10	2	63-500	POC-2	0.280	S	139.670	140.250	0.580	2.072		
	10	2	63-500	M-1	0.280	N	15.206	15.865	0.659	2.354		
	10	2	<63	POC-1	0.210	S	143.140	152.230	9.090	43.299	114.156	
	10	2	<63	POC-2	0.210	S	144.930	154.350	9.420	44.871		
	10	2	<63	M-1	0.210	N	15.812	24.568	8.756	41.708		
	10	2	<63	M-2	0.210	N	15.312	24.248	8.936	42.565		

COMMENTS : Duration of deployment was 26.64 days.
Collection area of one cylinder was 0.007088 square meters (8 cylinders per trap).
See first page of APPENDIX B for explanation of calculations and abbreviations.
All 8 cups of the 5 meter sample were combined into one container (not acid cleaned) in order to turn the cups around for the next deployment.
Due to this, there is no hydrocarbon sample at 5 meters.

APPENDIX F
MULTI-TRAP STATION 4-2 - SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
4-2	5	2	>500	NO SAMPLE								
	5	6	<350	HC	0.067	S	153.090	156.760	3.670		51.289	
	5	2	<500	SEM	0.039	N	16.480	16.850	0.370	9.404		
	5	2	<500	LM	0.082							
	5	2	63-500	POC-1	0.439	S	138.150	139.490	1.340	3.050	8.302	36.046
	5	2	63-500	M-1	0.439	N	15.342	16.587	1.245	2.834		
	5	2	<63	POC-1	0.220	S	142.710	144.880	2.170	9.878	27.744	
	5	2	<63	POC-2	0.220	S	145.830	148.000	2.170	9.878		
	5	2	<63	M-1	0.220	N	15.825	18.017	2.192	9.979		
	5	2	<63	M-2	0.220	N	15.500	17.607	2.107	9.592		
4-2	10	2	>500	N0 SAMPLE								
	10	6	<350	HC	0.050	S	153.960	196.160	42.200		800.288	
	10	6	<350	HC	0.058	S	161.380	211.710	50.330			
	10	2	<500	SEM	0.010	N	17.250	20.037	2.787	266.756		
	10	2	<500	LM	0.075							
	10	2	63-500	POC-1	0.915	S	145.420	146.600	1.180	1.290	3.639	813.858
	10	2	<63	POC-1	0.229	S	113.530	206.310	92.780	405.629	810.219	
	10	2	<63	POC-2	0.229	S	140.230	177.530	37.300	163.073		
	10	2	<63	M-1	0.229	N	15.813	82.160	66.347	290.065		
	10	2	<63	M-2	0.229	N	15.429	81.694	66.265	289.707		

COMMENTS ; Duration of deployment was 24.998 days.
Collection area of one cylinder was 0.007088 square meters (8 cylinders per trap).
See first page of APPENDIX B for explanation of calculation and abbreviations.
The 5 meter sample did not have any HgCl2 added due to the need to
reuse the cups from the first deployment. Bacterial growth is
a possibility in these samples and may affect the POC data.

APPENDIX F
MULTI-TRAP STATION 5-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
5-1	10	6	<350	HC	0.105	S	148.310	154.100	5.790		59.641	
	10	2	>500	ALG+ZOOPLK	1.000	S	136.610	143.250	6.640	6.640	21.473	
	10	2	>500	ALGAE	1.000		136.610	137.330	0.720	0.720	2.328	
	10	2	<500	SEM	0.037	N	17.650	18.342	0.692	18.536	59.943	59.943
	10	2	<500	LM	0.200							
	10	2	63-500	POC-1	0.254	S	143.040	143.590	0.550	2.163	7.412	42.344
	10	2	63-500	POC-2	0.254	S	166.960	167.620	0.660	2.596		
	10	2	63-500	M-1	0.254	N	15.748	16.286	0.538	2.116		
	10	2	<63	POC-1	0.191	S	137.410	139.470	2.060	10.804	34.932	
	10	2	<63	POC-2	0.191	S	134.480	136.400	1.920	10.070		
	10	2	<63	M-1	0.191	N	15.748	17.920	2.172	11.392		
	10	2	<63	M-2	0.191	N	16.024	18.110	2.086	10.941		
5-1	15	2	>500	ALG+ZOOPL	1.000	S	146.560	153.780	7.220	7.220	23.349	
	15	2	>500	ALGAE	1.000		146.560	149.520	2.960	2.960	9.572	
	15	2	<500	SEM	0.047	N	17.510	18.849	1.339	28.640	92.619	92.619
	15	2	<500	LM	0.062							
	15	2	<500	LM	0.081							
	15	2	63-500	POC-1	0.270	S	141.610	142.380	0.770	2.850	9.182	98.345
	15	2	63-500	POC-2	0.270	S	145.770	146.580	0.810	2.999		
	15	2	63-500	M-1	0.270	N	16.259	16.980	0.721	2.669		
	15	2	<63	POC-1	0.203	S	138.980	144.860	5.880	29.023	94.836	
	15	2	<63	POC-2	0.203	S	141.890	147.910	6.020	29.714		
	15	2	<63	M-1	0.203	N	16.160	22.197	6.037	29.798		
	15	2	<63	M-2	0.203	N	15.706	21.534	5.828	28.766		

Table continued on next page.

APPENDIX F

MULTI-TRAP STATION 5-1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
5-1	20	6	<350	HC	0.073	S	149.290	167.870	18.580		273.727	
	20	2	>500	ALG+ZOOPL	1.000	S	141.830	159.320	17.490	17.490	56.561	
	20	2	>500	ALGAE	1.000		141.830	147.510	5.680	5.680	18.369	
	20	2	<500	SEM	0.026	N	17.760	19.351	1.591	60.988	197.232	197.232
	20	2	<500	LM	0.087							
	20	2	63-500	POC-1	0.296	S	144.810	146.180	1.370	4.634	15.350	253.083
	20	2	63-500	POC-2	0.296	S	144.700	145.940	1.240	4.194		
	20	2	63-500	M-1	0.296	N	15.550	17.150	1.600	5.412		
	20	2	<63	POC-1	0.222	S	138.440	155.640	17.200	77.569	237.733	
	20	2	<63	POC-2	0.222	S	145.690	162.180	16.490	74.367		
	20	2	<63	M-1	0.222	N	15.423	31.181	15.758	71.065		
	20	2	<63	M-2	0.222	N	15.756	31.510	15.754	71.047		

COMMENTS : Duration of deployment was 21.813 days.
Collection area of one cylinder was 0.007088 square meters (8 cylinders per trap).
See first of APPENDIX B for explanation of calculations and abbreviations.
Trap was jarred on recovery resulting in some sample loss from
cups 3-8 (the 6 cups combined for hydrocarbon analysis).
Cups 1 and 2 that were combined for the other analysis were
not disturbed.

APPENDIX F
MULTI-TRAP STATION 5-2 - SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
5-2	10	6	<350	HC	0.063	S	146.810	160.270	13.460		180.604	
	10	2	>500	ALG+ZOOPL	1.000	S	140.780	156.040	15.260	15.260	38.589	
	10	2	>500	ALGAE	1.000		140.780	143.700	2.920	2.920	7.384	
	10	2	<500	SEM	0.048	N	15.310	18.553	3.243	67.176		
	10	2	<500	LM	0.115							
	10	2	63-500	POC-1	0.279	S	136.880	138.050	1.170	4.195	10.943	142.952
	10	2	63-500	POC-2	0.279	S	145.190	146.290	1.100	3.944		
	10	2	63-500	M-1	0.279	N	16.444	17.795	1.351	4.844		
	10	2	<63	POC-1	0.209	S	150.530	161.730	11.200	53.538	132.009	
	10	2	<63	POC-2	0.209	S	148.190	159.730	11.540	55.164		
	10	2	<63	M-1	0.209	N	15.703	26.049	10.346	49.456		
	10	2	<63	M-2	0.209	N	16.192	26.789	10.597	50.656		
5-2	15	6	<350	HC	0.093	S	156.100	173.560	17.460		158.171	
	15	2	>500	ALG+ZOOPL	1.000	S	148.260	148.870	0.610	0.610	1.542	
	15	2	>500	ALGAE	1.000		148.260	148.560	0.300	0.300	0.758	
	15	2	<500	SEM	0.053	N	17.530	21.369	3.839	71.773		
	15	2	<500	LM	0.122							
	15	2	63-500	POC-1	0.275	S	141.070	141.760	0.690	2.511	9.515	187.877
	15	2	63-500	POC-2	0.275	S	153.080	154.240	1.160	4.221		
	15	2	63-500	M-1	0.275	N	15.943	17.196	1.253	4.560		
	15	2	<63	POC-1	0.206	S	122.230	136.270	14.040	68.121	178.362	
	15	2	<63	POC-2	0.206	S	140.690	156.500	15.810	76.709		
	15	2	<63	M-1	0.206	N	15.404	29.635	14.231	69.047		
	15	2	<63	M-2	0.206	N	15.418	29.501	14.083	68.329		

Table continued on next page.

APPENDIX F
MULTI-TRAP STATION 5-2 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
5-2	20	6	<350	HC	0.078	S	131.860	174.350	42.490		458.207	
	20	1	>500	ALG+ZOOPL	1.000	S	146.850	150.340	3.490	3.490	17.642	
	20	1	>500	ALGAE	1.000		146.850	147.930	1.080	1.080	5.459	
	20	1	<500	SEM	0.046	N	16.720	20.481	3.761	82.185		
	20	1	<500	LM	0.085							
	20	1	63-500	POC-1	0.290	S	148.190	149.170	0.980	3.381	16.331	443.927
	20	1	63-500	POC-2	0.290	S	146.490	147.330	0.840	2.898		
	20	1	63-500	M-1	0.290	N	15.404	16.393	0.989	3.412		
	20	1	<63	POC-1	0.217	S	100.100	119.960	19.860	91.364	427.596	
	20	1	<63	POC-2	0.217	S	142.990	163.930	20.940	96.332		
	20	1	<63	M-1	0.217	N	15.635	31.444	15.809	72.728		
	20	1	<63	M-2	0.217	N	16.737	33.678	16.941	77.935		

COMMENTS : Durations of deployment were 27.896 days (10 m), 27.903 days (15 m), and 27.910 days (20 m).
Collection area of one cylinder was 0.007088 square meters (8 cylinders per trap).
See first page of APPENDIX B for explanation of calculations and abbreviations.
The baffles from cup 3 and 8 of the 15 meter sample were in the cup on recovery.
Cup 8 of the 15 meter sample contained a blue object (1 cm diameter).
There was no cup 1 on the trap at 20 meters on recovery and
as a result, only cup 2 was used for the metal and POC samples.
Disturbance of the traps was probably due to the curiosity
of the seals that had been sighted at this station.

APPENDIX F
MULTI–TRAP STATION 9–1 – SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
9-1	10	6	<350	HC	0.075	S	141.940	143.660	1.720		21.305	
	10	2	>500	ALG+ZOOPL	1.000	S	145.790	205.280	59.490	59.490	166.840	
	10	2	>500	ALGAE	1.000		145.790	149.150	3.360	3.360	9.423	
	10	2	<500	SEM	0.043	N	15.780	17.632	1.852	43.107		
	10	2	<500	LM	0.074							
	10	2	63-500	POC-1	0.294	S	133.430	134.300	0.870	2.956	7.883	21.729
	10	2	63-500	POC-2	0.294	S	127.530	128.320	0.790	2.684		
	10	2	63-500	M-1	0.294	N	15.460	16.282	0.822	2.793		
	10	2	<63	POC-1	0.221	S	133.080	133.880	0.800	3.624	13.845	
	10	2	<63	POC-2	0.221	S	128.120	128.700	0.580	2.628		
	10	2	<63	M-1	0.221	N	15.534	16.689	1.155	5.232		
	10	2	<63	M-2	0.221	N	16.496	18.320	1.824	8.263		
9-1	40	6	<350	HC	0.085	S	148.230	150.050	1.820		20.133	
	40	2	>500	ALG+ZOOPL	1.000		136.700	139.320	2.620	2.620	7.348	
	40	2	>500	ALGAE	1.000		136.700	137.960	1.260	1.260	3.534	
	40	2	<500	SEM	0.011	N	16.720	17.357	0.637	56.693		
	40	2	<500	LM	0.112							
	40	2	63-500	POC-1	0.292	S	143.330	144.140	0.810	2.773	8.720	29.315
	40	2	63-500	POC-2	0.292	S	145.250	146.290	1.040	3.560		
	40	2	63-500	M-1	0.292	N	16.380	17.255	0.875	2.995		
	40	2	<63	POC-1	0.219	S	137.620	139.310	1.690	7.713	20.595	
	40	2	<63	POC-2	0.219	S	128.930	130.570	1.640	7.485		
	40	2	<63	M-1	0.219	N	15.452	16.995	1.543	7.042		
	40	2	<63	M-2	0.219	N	15.186	16.749	1.563	7.134		

COMMENTS : Duration of deployment was 25.153 days.
Collection area of one cylinder was 0.007088 square meters (8 cjylinder per trap).
See first page of APPENDIX B for explanation of calculations and abbreviations,

APPENDIX F
MULTI-TRAP STATION 9-2 - SPLITTING INFORMATION, SUBSAMPLE WEIGHTS AND FLUX CALCULATIONS

STN	DEPTH (m)	# CUPS COM-BINED	SIZE FRACT.	SAMPLE TYPE	FRACT. TOTAL SMPL.	FILTER TYPE	FILTER WT. (mg)	GROSS WT. (mg)	SAMPLE WT. (mg)	TOTAL WT. (mg)	FLUX SIZE FRACT (mg/m2/d)	FLUX <500 (mg/m2/d)
9-2	10	2	>500	ALG+ZOOPL	1.000	S	148.880	152.250	3.370	3.370	9.617	
	10	2	>500	ALGAE	1.000		148.880	151.310	2.430	2.430	6.935	
	10	2	<350	HC	0.064		159.770	162.120	2.350		105.385	
	10	2	<500	SEM	0.052	N	16.520	17.027	0.507	9.750		
	10	2	<500	LM	0.105							
	10	2	63-500	POC-1	0.422	S	152.400	153.150	0.750	1.779	4.550	23.030
	10	2	63-500	M-1	0.422	N	15.755	16.349	0.594	1.409		
	10	2	<63	POC-1	0.211	S	145.860	147.420	1.560	7.402	18.480	
	10	2	<63	POC-2	0.211	S	144.890	146.300	1.410	6.690		
	10	2	<63	M-1	0.211	N	15.726	17.018	1.292	6.130		
	10	2	<63	M-2	0.211	N	16.034	17.231	1.197	5.680		
9-2	40	6	<350	HC	0.080	S	150.770	158.050	7.280		86.564	
	40	2	>500	ALG+ZOOPL	1.000	S	144.680	146.380	1.700	1.700	4.851	
	40	2	>500	ALGAE	1.000		144.680	146.280	1.600	1.600	4.566	
	40	2	<500	SEM	0.018	N	16.903	17.419	0.516	28.182		
	40	2	<500	LM	0.070							
	40	2	63-500	POC-1	0.304	S	146.460	147.380	0.920	3.029	9.035	81.122
	40	2	63-500	POC-2	0.304	S	145.790	146.960	1.170	3.852		
	40	2	63-500	M-1	0.304	N	15.989	16.784	0.795	2.617		
	40	2	<63	POC-1	0.228	S	138.990	145.500	6.510	28.576	72.087	
	40	2	<63	POC-2	0.228	S	140.790	147.530	6.740	29.585		
	40	2	<63	M-1	0.228	N	15.540	20.538	4.998	21.939		
	40	2	<63	M-2	0.228	N	16.214	20.985	4.771	20.942		

COMMENTS : Duration of deployment was 24.719 days.
Collection area of one cylinder was 0.007088 square meters (8 cjylinder per trap).
See first page of APPENDIX B for explanation of calculations and abbreviations,
For the 10 meter sample, the baffles were in the cup on recovery. There
was a seal sighted in the hole on the recovery day.

11 Appendix G

KENNEY-TRAP TOTAL WEIGHTS.

STATION	DURATION OF DEPLOYMENT (days)	POCKET		MOISTURE CONTENT	SALINITY (ppt)	UNCORR. SAMPLE WEIGHT (g)	SALT CORR. SAMPLE WEIGHT (g)	
K5	50.207							
		A-1	BOTTOM	0.8628	22.154	2.461	2.110	
		A-2		0.9318	26.213	2.667	1.686	
		A-3		0.8734	21.667	1.712	1.451	
		A-4		0.9258	26.606	2.025	1.335	
		A-5		0.9186	23.672	1.691	1.228	
		A-6		0.9201	27.705	1.783	1.198	
		A-7		0.9322	27.717	1.834	1.115	
		A-8		0.9315	27.613	1.594	0.978	
		A-9		0.9292	29.730	1.309	0.783	
		A-10	TOP	0.9042	30.166	0.912	0.644	
K4	51.024							
		B-5	BOTTOM	0.7864	22.135	3.0955	2.838	
		B-4		0.7622	25.929	3.7397	3.421	
		B-3		0.7405	26.924	3.8251	3.523	
		B-2		0.7660	28.941	2.7927	2.520	
		B-1	TOP	0.7871	26.623	1.5578	1.400	
K3	35.339							
		A-1	BOTTOM	0.4399	23.874	287.797	282.270	>
		A-2		0.4274	22.385	265.221	260.689	>
		A-3		0.4033	21.735	291.399	287.023	>
		A-4		0.4041	22.390	253.589	249.651	>
		A-5		0.3881	23.198	225.646	222.248	>
		A-6		0.4015	19.968	176.502	174.090	>
		A-7		0.3531	18.927	149.575	148.000	
		A-8		0.3756	18.191	141.829	140.248	
		A-9		0.3577	14.043	125.591	124.595	
		A-10	TOP	0.3737	23.577	101.325	99.865	

NOTE : For station K3, the bottom six samples were full to overflowing. These samples are marked with a >, indicating that the true weights for these samples is greater than the reported values.

NOGAP B.6 Data Reports in the Canadian Data Report of Hydrography and Ocean Sciences Series

Macdonald, R.W., K. Iseki, E.C. Carmack, D.M. Macdonald, M.C. O'Brien, and F.A. McLaughlin, 1988. Data Report: NOGAP B.6; Beaufort Sea Oceanography, September, 1986. *Can. Data Rep. Hydrogr. Ocean Sci.:* **58**, 68pp.

Cuypers, L.E., A.W. Blaskovich, E.C. Carmack, and R.W. Macdonald, 1988. NOGAP B.6; Physical data collected in the Beaufort Sea, September, 1986. *Can. Data Rep. Hydrogr. Ocean Sci.:* **59**, 149pp.

McCullough, D., R.W. Macdonald, K. Iseki, and E.C. Carmack, 1988. NOGAP B.6; Volume 1: Beaufort Sea current measurements, March-August 1987. *Can. Data Rep. Hydrogr. Ocean Sci.:* **60**, 42pp.

Macdonald, D.M., L.E. Cuypers, D. McCullough, E. Carmack, and R.W. Macdonald, 1988, NOGAP B.6: Volume 2: Physical data collected in the Beaufort Sea, March-June 1987. *Can. Data Rep. Hydrogr. Ocean Sci.:* **60**, 157 pp.

McCullough, D., R.W. Macdonald, K. Iseki, and E.C. Carmack, 1988. NOGAP B.6; Volume 3: Beaufort Sea current measurements, September, 1987 - March, 1988. *Can. Data Rep. Hydrogr. Ocean Sci.:* **60**, 37pp.

R.W. Macdonald, K. Iseki, M.C. O'Brien, F.A. McLaughlin, D. McCullough, D.M. Macdonald, E.C. Carmack, H. Adams, M. Yunker, G. Miskulin and S. Buckingham, 1988. NOGAP B.6; Volume 4: Chemical data collected in the Beaufort Sea, Summer 1987. *Can. Data Rep. Hydrogr. Ocean Sci.:* **60**, 103pp.

R.W. Macdonald, K. Iseki, M.C. O'Brien, F.A. McLaughlin, D. McCullough, D.M. Macdonald, E.C. Carmack, M. Yunker, S. Buckingham, and G. Miskulin, 1988. NOGAP B.6; Volume 5: Chemical data collected in the Beaufort Sea and Mackenzie Delta, March - July 1987. *Can. Data Rep. Hydrogr. Ocean Sci:* **60**, 55pp.

Carmack, E.C., J. Papadakis, D.M. Macdonald and R.W. Macdonald 1989. NOGAP B.6: Volume 6: Physical data collected in the Beaufort Sea, Summer 1987. *Can. Data Rep. Hydrogr. Ocean Sci.* **60**, 219pp.

Yunker, M.C., F.A. McLaughlin, F.R. Fowler, T.A. Smyth, W.J. Cretney, R.W. Macdonald and D. McCullough 1990. NOGAP B.6: Volume 7 Hydrocarbon determinations; Mackenzie River and Beaufort Sea shoreline peat samples. *Can. Data Rep. Hydrogr. Ocean Sci.:* **60**, 81pp.

R.W. Macdonald, E.C. Carmack, M.C. O'Brien, F.A. McLaughlin, B.G. Minkley, and K. Berger-North, 1990. Oceanographic data collected for the *Sir John Franklin* in the Beaufort Sea, September 1989. *Can. Data Rep. Hydrogr. Ocean Sci:* **80**, 100pp.

R.W. Macdonald, E.C. Carmack, F. A. McLaughlin, D. Sieberg, M. C. O'Brien, D. Paton, R. Pearson, Yang Liangfeng, C. Gobeil, 1991, Oceanographic Data Collected from the *Henry Larsen* in the Beaufort Sea, August-September 1990. *Can. Data Rep. Hydrogr. Ocean Sci.:* **97**, 142 pp.

C. Gobeil, D. Paton, F.A. McLaughlin, R.W. Macdonald, G. Paquette, Y. Clermont, et M. Lebeuf, 1991, Données géochimiques sur les eaux interstitielles et les sédiments de la mer de Beaufort, *Rapp. Stat. Can. Hydrogr. Sci. Océan.:* **101**, 92pp.